

October 1938.

Technological Bulletin,
Series A, No. 46.

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Indian Central Cotton Committee
Technological Laboratory.

TECHNOLOGICAL REPORTS
ON
TRADE VARIETIES OF
INDIAN COTTONS,
1938

BY

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BOMBAY
BRITISH INDIA PRESS
1938.

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INTRODUCTION.

ONE of the main functions of the Technological Laboratory is to undertake under known and reproducible conditions, spinning tests on Indian cottons. Upto 1929, these tests were confined mostly to samples supplied by cotton breeders and agricultural officers of the Provincial Agricultural Departments. These samples represented either new varieties which were under trial or cottons grown in connection with such field experiments as the effect of different amounts of irrigations, different rotation of crops, different dates of sowing, etc., etc. As most of the samples tested at the Laboratory for the Agricultural Departments are in the experimental stage, the results of the tests made on them are not published for general information, but are communicated only to the departments concerned. With the expansion of the Committee's schemes in the provinces and the general recognition of the importance of the Laboratory tests, the number of such samples went on increasing steadily, but there was a general feeling that the work of the Laboratory should also be made more directly useful to the trade and the industry. It was felt that this purpose would best be served by carrying out spinning tests at the Laboratory on such samples of representative trade varieties as form the bulk of the Indian cotton crop. In order to put this idea into effect arrangements were made with the East India Cotton Association, Ltd., Bombay, for the supply of fair average quality of different trade varieties of Indian cotton for which the results of spinning tests could be broadcast for general information. These tests which were first made on the 1929-30 crop, have since been repeated on the same varieties without a break in the past nine seasons. The samples for these tests are selected by the Standards Committee of the East India Cotton Association, who also very kindly value them and give their opinion regarding their staple, class, regularity, strength, etc., etc. The tests on these samples are made with two objects. In the first place, they place in the hands of the trade and the industry reliable information regarding the waste losses and the spinning performance of the chief representative types of Indian cotton. This information is available not only to merchants and spinners in India, but also to those in the foreign countries who import or wish to import Indian cotton for their use. Thus, the consumers of Indian cottons, both in India and abroad, obtain reliable information regarding the spinning quality of the different types of Indian cottons in each season. In the second place, as these tests are made every year on samples of fair average quality selected by an expert and authoritative body like the Standards Committee of the East India Cotton Association, their results taken over a number of years are useful in showing whether a particular variety of cotton is maintaining its quality or showing signs of improvement or deterioration. If any particular variety is found, from the data available for a sufficient number of years, to show signs of steady deterioration, which is regarded as being outside the seasonal fluctuation, then it is possible to undertake an investigation into the causes of this deterioration and to adopt

the necessary remedial measures. It is clear that, in the absence of any reliable data obtained under definitely known and reproducible conditions on samples of fair average quality, it would not be possible to say definitely whether or not any particular type is showing signs of deterioration. The deterioration may, therefore, go on undetected for a number of years when it might have been possible to check it by ensuring a supply of pure seed or development of a new type. The following is a list of cottons which are to be supplied each year by the East India Cotton Association, Bombay.

Cottons received from the East India Cotton Association :—

1. C. P. No. 1	14. Kadi-Virangam
2. Bernar	15. Westerns
3. Khandesh	16. Farm Westerns
4. Nanded	17. Kumpta
5. Latur	18. Upland
6. Muttia	19. Bijapur
7. Punjab-American	20. Bagalkote
8. Broach	21. Cambodia
9. Jagadia	22. Tinnevely
10. Surat	23. Karunganni
11. Navsari	24. A. R. Kompala
12. Dholkeras	25. A. R. Busoga
13. Kalugin	26. A. R. Jinja

During the current year all except Nanded, Farm Westerns, Upland and Cambodia were received from the East India Cotton Association.

At the same time as the foregoing arrangement was made with the East India Cotton Association, Ltd., Bombay, it was also arranged with the Bombay Millowners' and the Ahmedabad Millowners' Associations, that some of their mill members would kindly supply to the Laboratory samples of early arrivals of different varieties of the Indian cotton crop. The object of making these tests was to place in the hands of the industry information regarding the waste losses and the spinning performance of different trade varieties in the early part of the season in order to enable the consumers to decide which of these cottons would be suitable for their mixings. These tests were begun in 1930-31, and have been continued up to the present season. In view of the fact, however, that sometimes a mill using a particular style of cotton in one season decided not to purchase the same style in the following season, a certain amount of discontinuity has occurred in some of these varieties. However, so far as possible, efforts have been made to obtain, in each season, samples of the same varieties so that the results of tests in the successive seasons may also be comparable. As regards the valuation of these samples, this was kindly done by the Grader (Major Ellis Jones) up to 1931-32, but in the following seasons the mills supplying the samples were requested to furnish their own valuation reports. The following is a list of

the cottons tested at the Laboratory under this arrangement with the Bombay and Ahmedabad Millowners' Associations :—

The following is a list of cottons which are to be received from the Bombay Millowners' Association each year :—

- | | |
|----------------------|-----------------------|
| 1. Farm Westerns | 11. Westerns |
| 2. Bailhongal | 12. Miraj |
| 3. Broach | 13. Surat |
| 4. Karunganni | 14. Navsari |
| 5. Nandyal | 15. Tiruppur Cambodia |
| 6. Northern Cambodia | 16. Hubli Kumpta |
| 7. Bengals | 17. Hubli Upland |
| 8. Khandesh | 18. Kampala (African) |
| 9. Ujjain | 19. Busoga (African) |
| 10. Maglai | 20. Jinja (African) |

During the current season Nandyal, Northern Cambodia, Navsari and Hubli Upland were not received for tests.

Cottons which are to be received from the Ahmedabad Millowners' Association each year are as follows :—

- | | | |
|------------|----------|---------|
| 1. Jagadia | 2. Bawla | 3. Kadi |
|------------|----------|---------|

None of these cottons were received during the current year.

The plan followed in presenting the results of tests carried out on these cottons is very nearly the same as that adopted in the Technological Reports on Standard Indian Cottons. Each technological report gives the grader's valuation report, spinning master's report, and the table of spinning test results which show the waste losses, number of yarn breakages in the ring frame, the actual counts spun, the results of the lea test and the ballistic test, actual number of turns per inch, front roller and spindle speeds, drafts employed, estimate of yarn neppiness and yarn evenness and the physical conditions of temperature and humidity prevailing in the spinning room and the yarn testing room. There is, however, this difference between these reports and those on the Standard Indian Cottons that as fibre tests are not made on these trade varieties, these reports do not contain the fibre test results, nor any attempt has been made to summarise the results in the form of 'remarks.'

The supply of these samples together with the valuation reports has not been free from a certain amount of extra work on the part of those who have very kindly co-operated with me in these tests. My best thanks are therefore due to the members of the Standards Committee of the East India Cotton Association, Bombay, and its office-bearers and to the mills supplying the samples. My thanks are also due to Major Ellis Jones for valuing some of the samples, to Messrs. R. P. Richardson and V. V. Gupte for supervising the spinning tests and to Mr. V. Venkataraman for assisting me in the compilation of the test result labels.

1.—C. P. No. 1 COTTON.

These samples have been very kindly supplied by the East India Cotton Association, inspection and approval by their Standards Committee, in accordance with an agreement made with the Association to supply to the Technological Laboratory, for samples of fair average cotton of the commercial crop.

Sample Cotton.	Place.	Season.	Sample Cotton.	Place.	Season.
C.P. No. 1. Katol	..	1930-31	2654 C.P. No. 1. Panderkora	1934-35	
..	Nagpur	.. 1931-32	3110 ..	Nagpur	.. 1935-36
..	..	.. 1932-33	3473 ..	Panderkora	1936-37
..	Panderkora	1933-34	3939 ..	..	1937-38

I.—SPINNING TESTS.

TECHNOLOGICAL REPORTS

ON

COTTONS SUPPLIED BY

THE EAST INDIA COTTON ASSOCIATION LTD., BOMBAY.

These samples are of fair average quality of the representative trade varieties which form the bulk of the Indian Cotton crop. The samples were selected by the Standards Committee of the East India Cotton Association, who have also very kindly furnished the valuation reports regarding their staple length, class, regularity, strength, etc.

..	..	Fairly clean, slightly stained; fairly clean.	Fairly clean.	Clean.	Clean.	Clean.	Fairly clean.	Fairly clean.
..	..	Good.	Good.	Good and rough.	Good.	Slightly rough.	Roughish.	Roughish.
..	..	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.
..
..	..	Clean.	Clean.	Clean.	Clean.	Clean.	Good even.	Clean.
..	..	Good.	Good.	Fairly even and nep-free.	Good.	Good.	Good; nep-free.	Good; almost free of neps.
10 flat strips.	Very light; 12.3 grams.	15.8 grams.	10.2 grams.	15.9 grams.	10.3 grams.	12.2 grams.	14.0 grams.	14.7 grams.
..	..	Fully-pressed.	..	..	..	..	..	..

(b) Yarn :—

C. P. No. 1.								
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
..	Clean.	Clean.	Clean.	Clean.	Clean.	Clean.	Almost clean.	Clean.
..	Fairly even.	Somewhat uneven.	Fairly even.	Somewhat uneven.	Somewhat uneven.	Even.	Even.	Even.
..	Practically free.	Practically free.	Free of nep.	Nep-free.	Free of nep.	Almost free of nep.	Free of nep.	Almost free of nep.
..	..	Fairly slubby.	..	..	A little slubby.	..	..	..
..

Spinning Test Details and Results.—See Table 1 on page 3.

II.—REPORT OF THE STANDARDS COMMITTEE FOR C. P. No. 1 COTTON.

C. P. No 1.

	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Contract valued under	Fine C. P. No. 1.	F. G. M. G. Branch No. 2.	F. M. G. Oomra Hedge Contract, No. 3.	Fine M. G. Oomra (Barax) H. C. No. 3.	Fine M. G. Oomra Hedge Contract No. 3, March 1936 delivery.	Fine M. G. Oomra Hedge Contract No. 3, March 1936 delivery.	Fine M. G. Oomra Hedge Contract No. 3, March 1937 delivery.	Fine M. G. Oomra Hedge Contract No. 3, March 1938 delivery.
Class	Fine to Superfine.	Barely fine.	Superfine.	Fine to Superfine.	Strios Superfine.	Superfine to Extra Superfine.	Barely fine.	Fine.
Colour	White.	Somewhat yellowish stain.	White	Dullish white.	Bright white.	Creamish white.	Creamy-white.	White.
Staple Length ..	5/8".	3/4".	5/8".	5/8".	11/10".	5/8".	5/8".	5/8".
Staple Strength ..	Regular.	Fair.	Fair.	Fair.	Fair.	Fair.	Medium.	Fair.
Regularity	Regular.	Fair.	Regular.	Regular.	Fair.	Regular.	Fairly regular.	Regular.
Value above or below Contract rate.	Rs. 2 on.	Rs. 4 off.	Rs. 12 on.	Rs. 15 on.	Rs. 20 on.	Rs. 22 on.	Rs. 13 on.	Rs. 1k on.
Basis	Rs. 160.	Rs. 175.	Settlement rate of F. M. G. Oomra Hedge Contract No. 3, March 1933 delivery Rs. 161.	Fine M. G. Oomra (Barax) H. C. No. 3, March 1934 delivery Rs. 160.	Fine M. G. Oomra Hedge Contract No. 3, March 1936 delivery Rs. 226.	Fine M. G. Oomra Hedge Contract No. 3, March 1936 delivery Rs. 170.	Fine M. G. Oomra Hedge Contract No. 3, March 1937 delivery Rs. 205.	Fine M. G. Oomra Hedge Contract No. 3, March 1938 delivery Rs. 156.
Date of Valuation	20-1-31.	9-5-32.	25-3-33.	7-2-34.	30-1-35.	2-3-36.	20-1-37.	2-2-38.
Remarks .. ..	..	Black leaf.	..	..	..	..	..	..

Table 1.—SPINNING TEST RESULTS FOR C. P. No. 1 COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample, lbs.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.						TEMPERATURE (°F.).		RELATIVE HUMIDITY (%).				
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per Inch.	LEA.			BALISTOG.			Spinning Room.	Spinning Room.	Testing Room.			
															Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lb.)	Count-Work Product.						
900	C.P. No. 1	1930-31	12-3-31	10A	10	5.8	8.0	0.0	13.9	60	197	6900	5.21	12.03	10.3	48.4	469	10.3	190.0	1957	4	1.2	12.0	80	67	07
900	"	1930-31	12-3-31	10C	10	"	"	"	"	0	193	7600	5.21	14.29	0.9	101.4	1004	0.6	232.8	2306	4	1.5	13.0	81	60	08
1330	C.P. No. 1	1931-32	13-5-32	10A	10	5.0	9.0	0.3	14.0	18	176	5800	5.44	12.63	0.8	65.3	640	10.0	208.8	2088	4	1.0	12.1	01	69	00
1330	"	1931-32	14-5-32	10C	10	"	"	"	"	36	192	7000	5.50	14.26	0.8	100.0	689	10.1	225.0	2279	5	1.2	13.8	80	60	06
1724	C.P. No. 1	1932-33	1-4-33	10A	10	6.7	10.0	0.5	16.4	64	171	6850	5.26	12.63	0.8	78.0	764	10.1	226.8	2230	4	0.5	12.1	85	72	70
1724	"	1932-33	1-4-33	10C	10	"	"	"	"	04	191	7700	5.41	14.29	10.1	105.3	1004	10.4	226.0	2350	4	1.0	13.8	87	60	08
1724	"	1932-33	3-1-33	12C	12	"	"	"	"	106	182	7706	5.62	15.61	12.2	70.1	928	12.4	186.0	2331	4	0.8	14.9	85	60	03
2137	C.P. No. 1	1933-34	11-3-34	10A	10	3.8	12.0	0.2	15.0	44	170	6900	5.35	12.63	10.0	63.3	633	0.9	216.8	2146	4	1.0	12.5	82	60	73
2137	"	1933-34	11-3-34	10C	10	"	"	"	"	13	196	7650	5.36	14.20	0.0	110.2	1150	10.0	237.0	2376	5	1.0	14.0	82	70	74
2654	C.P. No. 1	1934-35	8-2-35	10A	10	6.0	10.4	0.1	16.7	36	178	6100	5.12	12.03	10.4	41.0	436	10.2	196.2	2002	4	1.0	12.0	80	60	08
2654	"	1934-35	8-2-35	10C	10	"	"	"	"	0	195	7500	5.12	14.20	10.2	61.7	935	10.2	210.2	2230	5	0.8	13.0	80	68	70
3110	C.P. No. 1	1935-36	9-3-36	10A	10	4.1	9.8	0.1	13.0	0	194	6900	5.20	12.63	10.5	69.8	1048	10.5	214.8	2570	3	0.5	12.2	80	67	63
3110	"	1935-36	9-3-36	10C	10	"	"	"	"	0	204	8000	5.20	14.20	10.5	140.0	1533	10.4	208.8	2706	3	0.8	13.8	82	65	03
3110	"	1935-36	14-3-36	12A	12	"	"	"	"	15	188	7300	5.30	17.02	12.6	71.4	900	12.0	188.8	2370	4	1.0	13.5	81	61	60
3473	C.P. No. 1	1936-37	1-2-37	10A	10	5.8	10.2	0.3	15.7	27	190	7000	5.48	12.63	10.0	72.0	726	10.2	234.4	2391	3	0.5	12.2	80	60	08
3473	"	1936-37	1-2-37	10C	10	"	"	"	"	19	200	8366	5.48	14.29	10.1	117.5	1187	9.8	278.4	2723	3	0.8	13.8	81	60	08
3473	"	1936-37	4-2-37	12B	12	"	"	"	"	51	188	7700	6.71	14.63	12.8	53.8	680	12.8	186.0	2304	4	0.8	14.2	81	68	08
3639	C.P. No. 1	1937-38	9-2-38	10A	10	6.0	8.7	0.3	15.1	27	192	6400	5.53	12.63	10.1	70.0	737	10.2	232.8	2273	3	1.0	12.2	80	67	08
3639	"	1937-38	10-2-38	10B	10	"	"	"	"	18	210	7800	5.53	13.58	10.5	65.3	1001	10.3	238.4	2460	3	1.2	13.2	81	60	08
3639	"	1937-38	10-2-38	12C	12	"	"	"	"	44	200	8400	5.45	15.51	12.3	85.1	1047	12.2	198.8	2425	3	1.0	15.1	82	65	60

* The ring frame front roller diameter—1". Diameter of rings—1½".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

2.—BERAR COTTON.

These samples have been very kindly supplied by the East India Cotton Association after inspection and approval by their Standards Committee in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.	Sample No.	Cotton.	Place.	Season.
1004	Berar	Amraoti	1930-31.	2656	Berar	Akote	1934-35.
1335	"	Murtizapur	1931-32.	3264	"	Akola	1935-36.
1723	"	Amraoti	1932-33.	3474	"	Anjangaon	1936-37.
2136	"	Shegaon	1933-34.	3926	"	Akola	1937-38.

1. Treatment :—

(a) *Blow-room*—Upto 1934-35 (inclusive) :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1935-36 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*—Upto 1933-34 (inclusive) :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	BERAR.							
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Colour	White to creamy-white; bright.	Creamy-white.	White to creamy-white	White; bright.	White to creamy-white.	Creamy-white.	Creamy-white to white.	White to creamy-white.
Cleanliness ..	Trifle stained; a little leafy.	Somewhat stained, leafy.	Leafy ..	Somewhat leafy.	Leafy ..	Slightly stained; leafy.	Fairly clean, a little stained; contains leaf.	Leafy.
Feel	Slightly harsh.	Roughish ..	Good ..	Good-bodied ..	Roughish ..	Good ..	Fairly good ..	Fair.
Glaning and Neppiness	Well-glaned ..	Well-glaned ..	Well-glaned ..	Well-glaned ..	..	A little knotted.	Well-glaned ..	Well-glaned.
Seeds	0.75 per cent unginned.	..	A few seeds ..	..	Many unginned seeds.	..	..	..
Card silver .. ..	..	Fairly clean ..	Clean ..	Clean ..	Clean ..	Almost clean ..	Good soft; contains a little leaf.	Clean.
Card web .. ..	..	Good ..	Fairly even and nep-free.	Even and nep-free.	Good ..	A little neppy and cloudy.	Good; almost nep-free.	Good; quite free of neps.
Weight of 10 hatastrips	..	16.4 grams ..	10.0 grams ..	14.5 grams ..	10.5 grams ..	23.3 grams ..	10.4 grams ..	15.8 grams.
Remarks .. ..	..	Fully-pressed.	..	..	..	..	..	..

(b) Yarn :—

	BERAR.							
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Cleanliness ..	Clean ..	Clean ..	Clean ..	Clean ..	Clean ..	Almost clean ..	Fairly clean ..	Clean.
Evenness	Fairly even ..	Somewhat uneven ..	Fairly even ..	Fairly even ..	Somewhat uneven ..	Even ..	Fairly even ..	Fairly even.
Neppiness	Free ..	Practically free ..	Fairly nep-free.	Nep-free ..	Fairly nep-free.	Nep-free ..	Free of nep ..	Free of nep.
Stableness	Somewhat stabby.	Fairly stabby.	..	..	..	..	A little stabby	..
Remarks .. ..	..	..	..	..	..	..	..	..

3. *Spinning Test Details and Results.*—See Table 2 on page 6.

II.—REPORT OF THE STANDARDS COMMITTEE

BIMAR.

1937-38.

1936-37.

1935-36.

1934-35.

1933-34.

1932-33.

1931-32.

1930-31.

Contract valued under.		F. G. M. G. Oomra No. 3.	F. G. M. G. Oomra Hedge Contract No. 3.	F. M. G. Oomra (Berar) Hedge No. 3, March 1935, delivery.	Fine M. G. Oomra Contract No. 3, March 1935, delivery.	Fine M. G. Oomra H. C. No. 3, July 1937, delivery.	Fine M. G. Oomra H. C. No. 3, March 1938, delivery.	Fine M. G. Oomra H. C. No. 3, Dec.-Jan. 1938, delivery.
Contract valued under.	Fino Oomra No. 3.	F. G. M. G. Oomra No. 2.	F. M. G. Oomra Hedge Contract No. 3.	F. M. G. Oomra (Berar) Hedge No. 3, March 1935, delivery.	Fine M. G. Oomra Contract No. 3, March 1935, delivery.	Fine M. G. Oomra H. C. No. 3, July 1937, delivery.	Fine M. G. Oomra H. C. No. 3, March 1938, delivery.	Fine M. G. Oomra H. C. No. 3, Dec.-Jan. 1938, delivery.
Class	.. Fino.	Fully good to fine.	Superfine.	White.	Extra superfino.	Fino.	Tully good to fine.	Superfino.
Colour	.. Creamy-white.	Bluish white with yellow stains.	White.	5/8".	5/8".	Greyish white.	Dull white.	Creamy-white.
Staple length	.. 1 1/2".	5/8".	5/8".	5/8".	5/8".	5/8".	5/8".	5/8".
Staple strength	.. Weak.	Good.	Fair.	Fair.	Fair.	Good.	Fair.	Fair.
Regularity	.. Irregular.	Regular.	Regular.	Regular.	Regular.	Regular.	Fairly regular.	Regular.
Value above or below contract rate	.. Rs. 1 on.	Rs. 14 off.	Rs. 5 on.	Rs. 3 on.	Rs. 7-8 on.	Par.	Pass.	Rs. 5 on.
Basis	.. Rs. 188.	Rs. 175.	Settlement rate of F. M. G. Oomra Hedge Contract No. 3, March 1933 delivery Rs. 167.	F. M. G. Oomra (Berar) Hedge No. 3, March 1934 delivery Rs. 190.	Fine M. G. Oomra Hedge Contract No. 3, March 1935 delivery Rs. 220.	Fine M. G. Oomra H. C. No. 3, July 1937, delivery Rs. 205.	Fine M. G. Oomra H. C. No. 3, March 1938, delivery Rs. 154.	Fine M. G. Oomra H. C. No. 3, Dec.-Jan. 1938, delivery Rs. 154.
Date of Valuation	.. 5-3-31.	0-5-32.	25-3-33.	7-2-34.	30-1-35.	24-6-36.	26-1-37.	25-1-38.
Remarks	..	Black leaf.	..	..	..	..	..	..

Table 2.—SPINNING TEST RESULTS FOR BERAR COTTON.

1	2	3	4	5	6	7	8	9	10	11	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.				TEMPERATURE, HUMIDITY, &c.			
											Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.	Yarn Breakage per 100 spindles per hour.	Front Roller Speed, ft. p.m.	Spindle Speed, R. p.m.	Draft.	Turns per inch.	Counts Actual.	Strength (lbs.)	Count-String Product.	Counts Actual.	Work of Spinning (hr./lb.).	Cost-Work Product.	Efficiency Class.	Miles per spindle.	Turns per inch.	Spinning Room.	Relative Humidity (%).
1001	Berar	1930-31	16-3-31	100	10	0.2	0.6	0.8	10.1	200	180	6750	5.00	12.05	10.2	31.4	320	10.3	122.8	1.863	4	1.0	12.0	06		
1001	"	1930-31	17-5-31	100	10	..	..	..	..	100	188	7250	5.10	11.20	10.2	29.0	602	10.2	140.0	1.897	5	2.0	13.7	06
2373	Berar	1931-32	13-5-32	100	10	8.0	10.2	0.6	17.8	115	170	6900	5.45	12.63	10.2	31.0	317	10.2	176.4	1.769	5	0.5	12.2	09		
"	"	1931-32	14-8-32	100	10	..	..	..	..	173	182	7200	5.20	11.25	0.9	73.5	750	10.2	105.2	1.091	4	1.0	13.9	05
1723	Berar	1932-33	1-4-33	100	10	12.0	12.0	0.0	24.0	136	171	9510	6.10	12.05	0.8	42.5	145	0.9	109.0	1.910	4	1.2	12.3	70		
1723	"	1932-33	1-4-33	100	10	..	..	..	..	101	181	7700	5.20	11.25	0.8	41.5	29	0.9	209.4	2.033	4	1.0	11.0	63
2130	Berar	1933-34	11-2-34	100	10	8.0	12.3	0.1	19.0	55	170	6060	5.47	12.63	10.1	63.0	620	10.3	210.4	2.167	6	1.0	12.2	60		
2130	"	1933-34	11-2-34	100	10	..	..	..	..	44	190	7550	5.47	11.25	0.9	111.7	1035	10.0	229.2	2.701	5	0.8	13.0	70
2650	Berar	1934-35	6-2-35	100	10	10.2	10.7	0.3	20.0	55	180	615	5.12	12.63	10.0	49.8	464	10.1	191.1	1.901	5	1.2	12.2	63		
2656	"	1934-35	8-2-35	100	10	..	..	..	..	36	191	7500	5.25	11.25	10.2	82.9	811	10.0	210.0	2.160	5	1.0	13.8	63
3261	Berar	1935-36	6-7-36	100	10	0.5	11.8	0.2	20.1	19	193	7060	5.31	12.63	10.1	62.9	631	10.2	221.5	2.509	3	1.0	12.0	70		
3261	"	1935-36	7-7-36	100	10	..	..	..	..	0	200	7930	5.31	11.25	10.1	106.6	1077	10.1	257.0	2.762	3	0.5	13.0	75
3171	Berar	1936-37	2-2-37	80	10	10.0	12.7	0.1	22.3	3	183	5800	4.80	11.31	8.1	54.9	177	7.9	210.5	1.992	3	0.8	10.7	69		
3174	"	1936-37	2-2-37	80	10	..	..	..	..	0	107	6530	4.89	12.61	7.9	112.9	910	7.9	259.6	2.507	3	0.5	12.0	07
3174	"	1936-37	2-2-37	100	10	..	..	..	..	15	199	7700	5.01	11.29	9.8	83.2	864	10.0	201.1	2.011	4	0.5	13.7	63
3026	Berar	1937-38	1-2-38	80	10	0.1	0.2	0.2	17.7	0	208	6300	5.27	11.31	8.0	101.3	811	8.1	310.0	2.511	3	0.8	10.8	60		
3026	"	1937-38	2-2-38	80	10	..	..	..	..	11	211	7200	5.31	12.61	8.3	179.9	1133	8.5	311.1	2.072	3	0.9	12.2	60
3026	"	1937-38	8-2-38	100	10	..	..	..	..	15	210	7600	5.65	13.54	10.2	96.1	913	10.1	220.1	2.327	3	0.8	13.1	07

* The ring frame front roller diameter—7/8". Diameter of spindles—1 3/8".
† It is to be noted that the total loss is for a small sample weighting 10 lbs.; for bulk sample spinners under mill conditions it would be less than shown here.

3.—KHANDESH COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.	Sample No.	Cotton.	Place.	Season.
1001	Khandesh	Dhulia.	1930-31.	2655	Khandesh	Dhulia.	1934-35.
1432	"	Chopda.	1931-32.	3265	"	Amalner.	1935-36.
1722	"	Dhulia	1932-33.	3475	"	Chalisgaon.	1936-37.
2138	"	"	1933-34.	3925	"	Dhulia.	1937-38.

I.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1934-35 :—Porcupine, Crighton (twice), Hopper, Scuteher (3 times). 1935-36 onwards :—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scuteher (3 times).

(b) *Card-room*.—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	KHANDESH.							
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Colour	White to creamy-white; fairly bright.	Dull creamy...	White to creamy-white.	White to creamy-white.	White to creamy-white.	Creamy-white to creamy.	White to creamy-white.	White to creamy-white.
Cleanliness ..	A little leafy; occasional spot of stain.	Leafy ..	Leafy ..	Leafy; occasionally stained.	Leafy ..	Leafy; stained.	Leafy; a little stained.	Very leafy.
Feel	Good ..	..	Good softish.	Good ..	Slightly rough.	Good ..	Roughish ..	Fair.
Ginning and neppiness ..	Well-ginned ..	Fairly well-ginned.	Well-ginned ..	Well-ginned ..	Well-ginned ..	Somewhat knotted.	Well-ginned ..	Well-ginned.
Seeds .. ..	..	1.4% unginned.	..	..	..	Few unginned seeds.	..	..
Card silver ..	Clean ..	Clean ..	Clean ..	Clean ..	Clean ..	Little leafy ..	Good; Leafy.	Almost clean.
Card web ..	First class ..	Fairly good.	Even and nep-free.	Even and nep-free.	Good ..	Trifle neppy and cloudy.	Good; nep-free; a little leafy.	Good; almost free of nep.
Weight of ten flat strips	19.1 grams very light.	15.8 grams	14.8 grams	15.2 grams	17.1 grams	24.5 grams	14.6 grams	10.1 grams.
Remarks .. ..	..	..	..	..	..	A waxy sample.	..	..

(b) Yarn :—

	KHANDESH.							
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Cleanliness ..	Clean ..	Clean ..	Clean ..	Almost clean.	Clean ..	A little leafy ..	Fairly clean ..	Almost clean.
Evenness ..	Fairly even ..	Even ..	Even ..	Fairly uneven.	Even in the lower count.	Fairly even ..	Even ..	Fairly even.
Neppiness ..	Fairly nep-free.	Practically nep-free.	Nep-free ..	Nep-free ..	Fairly free of nep.	Fairly free of nep.	Almost free of nep.	Free of nep.
Slubbiness ..	..	..	..	..	A little slubby.	..	..	..
Remarks ..	..	..	..	..	..	..	..	..

3. Spinning Test Details and Results.—See Table 3 on page 9.

Table 3.—SPINNING TEST RESULTS FOR KHANDESH COTTON.

Sample No.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample, lbs.	WASTE PERCENTAGES.				RING FRAMES PARTICULARS.*						YARN TEST RESULTS.										TEMPERATURE AND RELATIVE HUMIDITY (%).	
					Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.	Yarn Breakages per 100 spindles.	Front Roller Speed, ft. p. m.	Spindle Speed, R.P.M.	Draft.	Turns per inch.	BALANCING.				Twists per inch.	Spiraling Room.	Spiraling Room.						
														Counts Actual.	Strength (lbs.)	Counts Strength	Counts Actual.				Work of Ring (lb.-in.)	Count Product.				
1001	1930-31	13-3-31	10A	10	8.7	7.4	0.6	16.0	20	165	6,350	5.25	12.03	10.1	77.6	791	10.3	200.2	2,155	4	2.6	11.8	70	67		
1001	1930-31	13-3-31	14A	10	..	..	..	..	20	152	6,350	6.81	14.03	13.8	11.5	611	11.0	127.6	1,780	5	3.0	14.2	67	68
1001	1930-31	13-3-31	14B	10	..	..	..	..	100	169	8,750	6.67	16.83	14.7	55.9	822	11.3	110.8	2,613	6	3.2	16.2	66	69
1432	1931-32	25-8-32	10A	9	16.3	11.3	0.7	26.3	47	164	8,350	5.11	13.07	16.7	80.3	1,261	13.4	141.8	2,184	3	1.0	16.2	70	70		
1432	1931-32	25-8-32	20	10	..	..	..	..	111	155	9,000	5.56	17.03	10.6	68.0	1,156	10.6	105.4	2,006	3	1.2	17.2	67	71
1722	1932-33	31-3-33	12A	10	11.1	0.2	0.6	19.8	121	166	7,300	5.21	13.03	12.6	60.7	809	11.0	102.0	2,283	3	0.5	13.4	66	71		
1722	1932-33	31-3-33	12B	10	..	..	..	..	160	103	7,050	5.21	14.03	12.0	82.0	595	11.4	106.5	2,222	3	0.8	14.2	65	70
1722	1932-33	31-3-33	16B	10	..	..	..	..	161	171	8,700	5.78	17.03	10.3	53.3	806	10.1	113.6	2,312	4	0.8	17.1	65	70
2138	1933-34	14-2-34	10A	10	11.1	11.0	0.4	21.7	27	202	7,000	6.71	12.03	6.9	106.5	1,057	10.1	213.0	2,350	1	1.0	12.2	70	72		
2139	1933-34	15-2-34	12B	10	..	..	..	..	16	194	7,050	5.44	14.03	12.6	93.7	1,311	11.6	200.1	2,371	3	1.0	11.2	64	73
2139	1933-34	15-2-34	14B	10	..	..	..	..	63	196	8,500	6.38	16.83	13.8	81.0	1,172	13.6	171.0	2,308	0	1.2	10.4	67	72
2655	1934-35	9-2-35	10A	10	11.1	10.7	0.4	20.6	45	106	6,650	5.37	12.03	10.0	87.1	871	9.6	216.6	2,171	1	1.5	12.0	68	71		
2655	1934-35	11-2-35	12B	10	..	..	..	..	36	106	7,000	5.33	14.03	12.5	60.6	870	12.3	131.1	2,263	5	1.2	13.8	70	70
2655	1934-35	11-2-35	14B	10	..	..	..	..	63	182	8,250	6.13	16.83	14.2	68.7	970	11.2	155.6	2,210	5	1.2	10.0	69	66
3205	1935-36	6-7-36	10A	10	11.2	13.1	0.4	23.1	18	106	6,650	5.33	12.03	10.0	67.6	970	9.0	215.2	2,323	4	1.0	12.3	72	70		
3205	1935-36	6-7-36	12B	10	..	..	..	..	15	103	8,000	5.31	14.03	11.0	68.0	920	11.0	206.2	2,497	5	1.5	14.2	71	70
3205	1935-36	14-7-36	120	10	..	..	..	..	33	107	8,750	5.42	15.00	12.0	81.8	932	12.2	190.1	2,306	4	0.8	15.3	71	72
3205	1935-36	7-7-36	14B	10	..	..	..	..	86	168	8,800	6.22	16.83	14.0	61.0	904	14.1	171.1	2,156	5	1.2	10.4	71	71
3475	1936-37	2-5-37	10A	10	12.2	16.2	0.3	21.1	6	196	6,666	5.61	12.03	10.2	100.1	1,113	10.1	237.6	2,602	3	1.0	12.3	68	67		
3475	1936-37	2-2-37	12A	10	..	..	..	..	29	182	7,000	5.60	13.03	11.8	63.4	1,102	11.8	214.6	2,523	4	1.2	13.6	67	69
3475	1936-37	3-2-37	14B	10	..	..	..	..	22	190	8,300	6.03	16.83	14.3	91.5	1,208	14.2	184.4	2,618	4	1.0	10.3	66	70
3925	1937-38	31-1-38	10A	10	12.6	9.8	0.3	21.0	6	203	6,800	5.60	12.03	6.0	66.1	931	9.9	225.2	2,220	1	1.0	12.2	67	69		
3925	1937-38	1-2-38	12A	10	..	..	..	..	15	103	7,100	5.11	13.03	11.0	71.0	856	11.3	168.4	2,292	4	0.8	13.5	61	69
3925	1937-38	1-2-38	12B	10	..	..	..	..	15	196	7,700	5.23	14.03	11.8	62.1	1,087	11.8	168.4	2,311	4	1.0	14.2	65	63

* Diameter of ring frame front roller— $\frac{1}{8}$ ". Diameter of rings— $\frac{1}{16}$ ".
† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

4.—NANDED COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Season.	Sample No.	Cotton.	Season.
669	Nanded.	1929-30.	2195	Nanded.	1933-34.
1003	..	1930-31.	2712	..	1934-35.
1338	..	1931-32.	3111	..	1935-36.
1725	..	1932-33.	3517	..	1936-37.

1. SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1934-35 (inclusive):—Porcupine, Crighton (twice), Hopper, Senteher (3 times).

1935-36 and 1936-37:—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Senteher (3 times).

(b) *Card-room*.—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Linter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards:—Same as above but spun from single hank roving on Ring Frame No. 3, which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

		NANDED							
		1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour	..	Creamy-white, brightish.	White to creamy-white.	Creamy-white.	Creamy-white; dull.	Creamy-white.	Creamy-white.	White.	Creamy-white; dullish.
Cleanliness	..	Leaves a little leafy.	Leaves a little leafy.	Leaves a little leafy.	Leaves a little leafy.	Leaves a little leafy.	Leaves a little leafy.	Leaves a little leafy.	Leaves a little leafy.
Fibre	..	Good-bodied.	..	..	Good.	Good.	Good.	Good.	Good.
Ginning and Scutching	..	..	..	..	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	..
Seeds	..	..	..	..	..	..	..	..	..
Card Sliver	..	..	..	..	..	..	..	..	..
Card Web	..	..	..	..	..	..	..	..	..
Weight of ten 10-steps	..	17.0 grams.	17.3 grams.	17.3 grams.	17.3 grams.	17.3 grams.	17.3 grams.	17.3 grams.	17.3 grams.
Remarks	..	..	..	..	..	..	..	..	..

(b) Yarn :—

		NANDED.							
		1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness
Evenness
Neppiness
Slubbiness
Remarks

3. Spinning Test Details and Results :—See Table 4 on page 12.

II.—REPORT OF THE STANDARDS COMMITTEE FOR NANDED.

11

NANDED.									
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	
Contract valued under	F. G. Branch No. 2.	F. G. Branch No. 2.	F. G. M. G. Branch No. 2.	F. G. M. G. Branch F. G. M. G. Branch H. C. No. 2.	F. G. M. G. Branch F. G. M. G. Branch H. C. No. 2. April/May 1934 delivery.	F. G. M. G. Branch F. G. M. G. Branch H. C. No. 2. April/May 1935 delivery.	F. G. M. G. Branch F. G. M. G. Branch H. C. No. 2. April/May 1936 delivery.	F. G. M. G. Branch F. G. M. G. Branch H. C. No. 2.	Branch
Class	Fully good to fine.	Fully good.	Fine.	Fine.	Fully good.	Fine.	Fine.	Good.	
Colour	A little dull.	Greyish.	Considerably Bluish White and stains.	Whitish.	Greyish white.	Greyish white.	Dull whitish.	White.	
Staple Length	15. 16 inch.	5/8 inch.	3/4 inch.	7/8 inch.	Full 7/8 inch.	7/8 inch.	7/8 inch.	7/8 inch.	
Staple Strength	Very strong.	Fair.	Fair.	Good.	Good.	Good.	Fair to good.	Good.	
Regularity	Regular.	Irregular.	Irregular.	A bit irregular.	Regular.	Irregular.	Irregular.	Slightly Irregular.	
Value above or below contract rate	Rs. 40 on F. G. Branch April/May.	Rs. 31 off.	Rs. 15 on.	Rs. 15 on.	Rs. 25 on.	Rs. 40 on.	Rs. 25 on.	Rs. 20 on.	
Basis .. ..	.. ..	Rs. 222.	Rs. 175.	Settlement rate of F. G. M. G. Branch F. G. M. G. Branch H. C. No. 2. April/May 1933 delivery Rs. 177.	F. G. M. G. Branch F. G. M. G. Branch H. C. No. 2. April/May 1934 delivery Rs. 201.	F. G. M. G. Branch F. G. M. G. Branch H. C. No. 2. April/May 1935 delivery Rs. 222.	F. G. M. G. Branch F. G. M. G. Branch H. C. No. 2. April/May 1936 delivery Rs. 189.	F. G. M. G. Branch F. G. M. G. Branch H. C. No. 2. April/May delivery Rs. 216.	
Date of Valuation	28-1-30.	5-3-31.	9-5-32.	25-7-33.	15-3-34.	26-3-35.	2-3-36.	16-3-37.	
Remarks	Not so silky or waxy as F. G. M. G. Latur.	Black leaf.	..	..	..	..	..	With some black leaf.	

Table 4.—SPINNING TEST RESULTS FOR NANDED COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.).	WASTE PERCENTAGES.				RING SPINNING PARTICULARS.*				YARN TEST RESULTS.						RELATIVE HUMIDITY (%).			
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R.P.M.	Spindle Speed, R.P.M.	Draft.	Turns per Inch.	Yarn.			BARRIER.			Spiraling Room.	Spiraling Room.	
															Counts Actual	Strength (lbs)	Count-String Product.	Counts Actual	Work of Rupture (inch-lb)	Count-Work Product.			Twists per yard.	Turns per Inch Actual
600	Nanded ..	1920-30	6-2-30	20 A	10	11.5	0.6	0.2	22.0	30	104	..	5.21	17.98	20.0	81.8	1,030	20.1	149.2	2,132	81	55	55
609	Nanded ..	1920-30	7-2-30	20 B	9	13.9	8.7	0.7	21.0	0	103	..	6.32	20.23	10.8	81.4	1,071	10.8	125.0	2,475	82	60	60
1003	Nanded ..	1930-31	14-3-31	12	9	..	..	..	..	10	180	7,100	4.07	13.92	12.1	77.0	932	12.1	205.8	2,100	81	69	67
1003	Nanded ..	1930-31	10-3-31	10 A	..	..	..	..	..	45	169	7,350	5.38	15.87	15.8	11.9	677	16.1	118.0	1,900	80	67	66
1003	Nanded ..	1930-31	10-3-31	16 B	..	..	..	..	..	60	172	8,800	5.53	18.10	10.9	50.1	617	10.8	110.1	2,900	85	65	69
1338	Nanded ..	1931-32	10-5-32	12	10	0.7	10.0	0.5	10.1	87	187	7,350	5.31	13.92	12.1	65.3	700	11.0	180.0	2,313	90	67	64
1339	Nanded ..	1931-32	18-6-32	10	..	..	..	..	..	125	178	8,000	6.09	17.98	10.2	50.0	905	10.0	138.8	2,001	91	71	66
1725	Nanded ..	1932-33	3-1-33	10	10	13.8	9.7	0.4	22.5	21	194	8,160	5.43	15.87	15.8	89.1	1,330	16.8	177.2	2,800	86	65	68
1725	Nanded ..	1932-33	3-1-33	20	..	..	..	..	..	83	186	9,200	5.43	17.05	10.8	72.8	1,441	20.2	190.2	2,128	87	65	68
1725	Nanded ..	1932-33	5-1-33	24	..	..	..	..	..	82	171	9,200	0.54	10.79	23.0	64.1	1,300	24.1	90.0	2,100	87	64	70
2105	Nanded ..	1933-34	20-3-34	20	10	13.8	10.0	0.0	21.0	47	103	9,430	0.19	17.08	10.8	83.3	1,041	10.5	111.1	2,021	85	60	72
2105	Nanded ..	1933-34	22-3-34	24	..	..	..	..	..	60	170	9,450	0.02	10.73	21.8	82.1	1,478	21.0	101.0	2,486	84	71	72
2105	Nanded ..	1933-34	22-3-34	30	..	..	..	..	..	73	140	9,000	7.57	23.11	30.2	11.0	1,350	30.0	80.8	2,152	86	50	50
2712	Nanded ..	1934-35	6-1-35	20	10	11.7	12.8	0.5	23.4	39	192	9,400	5.83	10.98	20.4	83.7	1,500	20.0	123.2	2,104	88	60	61
2712	Nanded ..	1934-35	8-1-35	24	..	..	..	..	..	15	171	9,000	5.41	10.73	21.1	51.1	1,282	22.0	100.0	2,127	83	70	62
2712	Nanded ..	1934-35	8-1-35	30	..	..	..	..	..	43	139	8,850	0.81	23.20	20.7	15.7	1,337	20.7	85.2	2,530	85	70	68
3111	Nanded ..	1935-36	9-3-36	20	10	9.1	8.5	0.3	17.0	5	190	9,250	6.10	17.08	20.2	87.0	1,570	20.0	127.1	2,021	82	64	64
3111	Nanded ..	1935-36	10-3-36	24	..	..	..	..	..	0	171	9,400	5.78	10.73	23.7	67.2	1,903	24.3	108.2	2,020	80	65	64
3111	Nanded ..	1935-36	10-3-36	30	..	..	..	..	..	17	138	9,400	7.20	21.80	30.7	14.3	1,300	30.5	91.1	2,181	81	67	63
3547	Nanded ..	1936-37	5-1-37	20	10	15.1	11.2	0.0	25.0	10	192	9,400	6.10	17.08	20.1	78.3	1,574	20.2	120.8	2,501	85	65	65
3547	Nanded ..	1936-37	1-1-37	24	..	..	..	..	..	0	172	9,800	5.39	10.73	23.4	62.6	1,405	21.1	101.0	2,506	84	66	66
3547	Nanded ..	1936-37	3-1-37	30	..	..	..	..	..	30	160	9,430	0.70	21.80	20.0	30.0	1,181	31.3	82.0	2,507	80	60	68

* Diameter of ring frame front roller—1 inch. Diameter of rings—11 inch.

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

5.—LATUR COTTON.

These samples have been very kindly supplied by the East India Cotton Association after inspection and approval by their Standards Committee, in accordance with an agreement made with the Association to supply to the Technological Laboratory, for samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Season.	Sample No.	Cotton.	Season.
1002	Latur	.. 1930-31.	2713	Latur	.. 1934-35.
1339	„	.. 1931-32.	3112	„	.. 1935-36.
1726	„	.. 1932-33.	3755	„	.. 1936-37.
2194	„	.. 1933-34.	4037	„	.. 1937-38.

I. SPINNING TESTS.

Pre-treatment :—

(a) *Blow-room*.—Upto 1934-35 (inclusive) :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1935-36 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 (inclusive) :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—Same as above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

Spinning Master's Report :—

(a) *Cotton* :—

LATUR.								
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
.. ..	Creamy-white.	Creamy	Dullish white to creamy-white.	Creamy-white.	White to creamy-white; brightish.	White.	Creamy-white.	White.
.. ..	Leafy; staled.	Very leafy (large size leaf); slightly stained.	Very leafy	Leafy; a little stained.	Leafy.	Very leafy; a little stained.	Very leafy.	Very leafy; an occasional stain.
.. ..	Soft silky.	..	Soft.	Good.	Good.	Good.	Fair.	Good.
and Nep.	Well-ginned.	Fairly well-ginned.	Well-ginned.	Fairly well-ginned.	Well-ginned.	Well-ginned.	..	..
.. ..	1.5%.	1.2%.	..	..	..	..	Some seeds.	Few unginned 0.53%.
er ..	Clean.	Almost clean.	Somewhat leafy.	Fairly clean.	Almost clean.	Clean.	Leafy	Leafy.
.. ..	Good.	Good.	Even, nep-free and shed much leaf.	Good.	Fairly good.	Even; oep-free.	Neppey	A little neppey.
f ten flat	17.6 grams.	17.9 grams.	19.5 grams.	20.8 grams.	20.7 grams.	13.7 grams.	31.6 grams.	20.0 grams.
.. ..	..	..	Gave a leafy up.	..	..	..	..	..

(b) *Yarn* :—

LATUR.								
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
.. ..	Clean.	Fairly clean.	Almost clean.	A little leafy.	Fairly clean.	Clean.	A little leafy.	Fairly clean.
.. ..	Even.	Even.	Even.	Even in the two lower counts.	Even.	Fairly even.	Fairly even.	Even in 16 only.
.. ..	A little neppey.	Almost free of ntp.	Practically free of nep.	Somewhat neppey.	A little neppey.	Slightly neppey.	Neppey.	A little neppey.
.. ..	..	..	Shows an occasional slab.	..	Slightly shabby.	..	..	..
..

Spinning Test Details and Results :—See Table 5 on page 15.

II.—REPORT OF THE STANDARDS COMMITTEE FOR LATUR.

LATUR.

	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Contracts valued under	F. G. Branch No. 2	F. G. M. G. Branch No. 2.	F. G. M. G. Branch Hedge Contract No. 2.	F. G. M. G. Branch Hedge Contract No. 2, April/May 1934 delivery.	F. G. M. G. Branch Hedge Contract No. 2, April/May 1935 delivery.	F. G. M. G. Branch Hedge Contract No. 2, April/May 1936 delivery.	F. G. M. G. Branch Hedge Contract No. 2, July/Aug. 1937 delivery.	F. G. M. G. Branch Hedge Contract No. 2, April/May 1938 delivery.
Glass	Fully good.	Fully good to fine.	Fine.	Fully good.	Strict fine.	Fine.	Good to fully good.	Fully good to fine.
Colour	Dull creamy.	Considerably bluish white and stale.	White.	Gray.	Grayish white.	Whitish.	Grayish white.	Dull white.
Staple Length	Barely 7/8 inch.	Full 7/8 inch.	7/8 inch.	7/8 inch.	27/32 inch.	7/8 inch.	13/16 inch.	3/4 inch.
Staple Strength	Good.	Fair.	Fair.	Good.	Good.	Good.	Moderate.	Weak.
Regularity	Irregular.	Fairly regular.	Irregular.	Irregular.	Regular.	Irregular.	Irregular.	Irregular.
Value above or below contract rate	Rs. 15 off.	Rs. 30 on.	Rs. 12 on.	Rs. 20 on.	Rs. 25 on.	Rs. 30 on.	Rs. 5 off.	Rs. 10 on.
Prices	Rs. 222.	Rs. 175.	Settlement rate of F. G. M. G. Branch Hedge Contract No. 2, April/May 1933 Rs. 177.	F. G. M. G. Branch Hedge Contract No. 2, April/May 1934 delivery Rs. 202.	F. G. M. G. Branch Hedge Contract No. 2, April/May 1935 delivery Rs. 222.	F. G. M. G. Branch Hedge Contract No. 2, April/May 1936 delivery Rs. 180.	F. G. M. G. Branch Hedge Contract No. 2, July/Aug. 1937 delivery Rs. 180.	F. G. M. G. Branch Hedge Contract No. 2, April/May 1938 delivery Rs. 163.
Date of Valuation	5-3-31.	9-3-32.	25-3-33.	8-3-34.	26-3-35.	2-3-36.	9-3-37.	26-4-38.
Remarks	Slightly stained and black leafy.	..	..	..	..	..	..	..

6.—MUTTIA COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.	Sample No.	Cotton.	Place.	Season.
1000	Muttia	Bhavnagar	1930-31	2714	Muttia	Bhavnagar	1934-35
1337	"	Botol	1931-32	3113	"	Amreli	1935-36
1885	"	(ondal)	1932-33	3546	"	Veraval	1936-37
2193	"	Bhavnagar	1933-34	4073	"	Bhavnagar	1937-38

I.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1934-35 (inclusive):—Porenpine, Crighton (twice), Hopper, Scutcher (3 times).

1935-36 onwards:—Hopper bale opener, Horizontal cleaner, Crighton (once), Tridged dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1. 1934-35 onwards:—Same as above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	MUTIA.							
	1930-31	1931-32	1932-33	1933-34	1934-35	1935-36	1936-37	1937-38
Colour	Dull creamy white	Creamy-white	Dullish creamy white	White creamy white	White to creamy white	White to creamy white	White to creamy white	White to creamy white
Character	Stained leaf	Very young with leaf	Leafy	Stained leafy	Very stained leafy	Very stained leafy	Very leafy	Very leafy; a little stained
Felt	Power		Softish	Rough	Roughish	Somewhat softish	Fairly good	Roughish
Ginning and Sep- pling					Somewhat knotted	Fairly well ginned		Well-ginned
Seed	0.75% seeds	1.4% and nod.	ginned and nod.	1.5% unstained	Contains many unclean seeds		Contains some unclean and dust.	Some, ginned and unclean and dust.
Card silver	Fairly clean	Clean	Clean	Almost clean	Almost clean	Almost clean	Fairly clean	Fairly clean.
Card Web	Good	Good	Good	Fairly good	Fairly good	Good	A trifle neppy.	Good; quite free of neps.
Weight of 10 flat strips	12.5 grams	15.5 grams	21.9 grams	19.0 grams	18.1 grams	18.8 grams	18.3 grams	14.8 grams.
Remarks	Very wast	Responded well to treatment.					Abnormally wasty in the blow-room.	

(b) Yarn.—

	MUTIA.							
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Cleanliness	Clean	Clean	Clean	Clean	Almost clean	Clean	Fairly clean	Clean.
Evenness	Even to fairly even.	Somewhat uneven.	Fairly even in the lower count.	Fairly even	Even	Even	Fairly even	Even.
Neppiness	Fairly nep-free.	Practically free of nep.	Free of nep	Nep-free	Free of nep	Almost nep-free	Free of nep	Free of nep.
Stubbiness		Fairly slubby.	A trifle slubby.		A trifle slubby.			
Remarks								

3. Spinning Test Details and Results :—See Table 6 on page 18.

II.—REPORT OF THE STANDARDS COMMITTEE FOR MUTTIA.

MUTTIA.									
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.	
Contract valued under ..	Fino Oomra No. 3.	F. G. M. G. Branch No. 2.	Fino M. G. Oomra Hedge Contract No. 3 Dec./Jan. 1934 delivery.	Fino M. G. Oomra Hedge Contract No. 3 March 1934 delivery.	Fino M. G. Oomra Hedge Contract No. 3 May 1935 delivery.	Fino M. G. Oomra Hedge Contract No. 3 March 1936 delivery.	Fino M. G. Oomra H. C. No. 3.	Fino M. G. Oomra H. C. No. 3 May 1938 delivery.	
Class ..	Fully good to fino.	Fully good to fino.	Superfino ..	Fino to superfine ..	Fine to superfino ..	Strict Fino ..	Fully good ..	Superfino.	
Colour ..	Dull ..	Brownish ; some- what stained.	Whitish ..	Whitish ..	Brownish-white ..	Whitish dull ..	Dull grey ..	Creamy-white.	
Staple Length ..	$\frac{1}{2}$ inch ..	$\frac{1}{2}$ inch ..	$\frac{1}{2}$ inch ..	$\frac{3}{4}$ inch ..	$\frac{1}{2}$ inch ..	$\frac{1}{2}$ inch ..	$\frac{3}{8}$ inch ..	$\frac{1}{2}$ inch.	
Staple Strength ..	Fair ..	Weak ..	Fair ..	Good ..	Good ..	Fair ..	Fair ..	Fair.	
Regularity ..	Regular ..	Irregular ..	Regular ..	Regular ..	Fair ..	Regular ..	Regular ..	Fair.	
Value above or below contract rate ..	Rs. 5 off ..	Rs. 20 off ..	Rs. 10 off ..	Rs. 10 off ..	Rs. 10 off ..	Rs. 7 off ..	Rs. 25 off ..	Rs. 15 off.	
Basis ..	Rs. 188 ..	Rs. 175 ..	Fino M. G. Oomra No. 3 Dec./Jan. 1934 dely. Rs. 199.	Fino M. G. Oomra H. C. No. 3 March 1934 dely. Rs. 170.	Fino M. G. Oomra H. C. No. 3 May delivery Rs. 108.	Fino M. G. Oomra Hedge Contract No. 3 March delivery Rs. 170.	Fino M. G. Oomra H. C. No. 3 March delivery Rs. 231.	Fino M. G. Oomra H. C. No. 3 May 1938 delivery Rs. 142.	
Date of Valuation ..	5-3-31 ..	9-5-32 ..	26-7-33 ..	8-3-34 ..	20-3-35 ..	2-3-36 ..	10-3-37 ..	10-5-38.	
Remarks ..	..	..	..	..	..	..	..	..

Table 6.—SPINNING TEST RESULTS FOR MUTTIA COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample, lbs.	WEAVER PERCENTAGES.				Yarn Breakages per 100 spindles per hour.	RING FRAME PARTICULARS.*					YARN TEST RESULTS.						TEMPERATURE (°F.).	RELATIVE HUMIDITY (%).	27
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss †		Front Roller Speed, R P M.	Spindle Speed, R P M.	Draft.	Turns per Inch.	L.P.A.			HALSTICK						
															Counts Actual.	Strength (lbs.)	Count Product	Counts Actual.	Wool or Linen (inch lb)	Count Work Product.	Twines Class.				Reps per yard.	Turns per Inch Actual.
1000	Muttia	1930-31	12-3-31	0A	10	17.7	8.5	0.5	25.0	0	107	6900	5.31	12.03	0.8	112.2	1100	250.0	2227	3	2.2	12.0	80	07
1000	Muttia	1930-31	12-3-31	14A						27	170	7500	5.42	14.08	13.0	84.3	755	135.2	1806	5	3.7	11.4	82	07
1000	Muttia	1930-31	13-3-31	11B						53	100	8750	5.42	10.85	11.4	68.3	683	135.0	1630	5	3.5	10.3	82	09
1337	Muttia	1931-32	14-5-32	10A	10	18.3	0.0	0.8	20.7	118	107	6800	5.55	12.03	10.0	65.0	650	165.0	1012	1	1.2	12.2	90	06
1337	Muttia	1931-32	16-5-32	12B						60	100	7700	5.43	14.03	11.4	80.3	615	180.8	2110	4	1.2	11.0	90	07
1337	Muttia	1931-32	16-5-32	14B						164	170	8300	0.07	16.85	11.0	58.9	825	141.1	2670	5	1.0	10.5	90	08
1885	Muttia	1932-33	20-8-33	10A	10	13.3	12.2	0.5	21.2	127	133	9400	5.37	12.03	0.7	75.5	732	214.8	2684	1	0.5	12.0	80	74
1885	Muttia	1932-34	20-8-33	10B						82	202	7550	3.50	13.58	10.0	89.0	890	211.0	2110	1	0.2	13.1	85	71
1885	Muttia	1932-33	20-8-33	12B						270	187	7550	5.50	11.08	12.3	60.8	730	174.0	2192	5	0.5	14.0	80	72
2103	Muttia	1932-34	20-3-34	10A	10	16.0	12.8	0.5	27.7	20	180	9400	5.67	12.03	10.1	71.7	724	202.0	2040	1	0.5	12.3	84	06
2103	Muttia	1932-34	20-3-34	12A						87	177	9700	3.08	13.02	11.8	65.1	654	168.1	2038	1	0.8	13.7	81	09
2103	Muttia	1932-34	20-3-34	12B						80	183	7500	5.81	14.08	12.0	60.1	703	174.0	2123	4	0.5	14.5	84	00
2714	Muttia	1934-35	9-4-35	10A	10	15.8	10.4	0.2	24.7	18	183	9200	5.34	12.03	10.2	106.2	1111	231.0	2785	3	0.5	12.0	82	04
2714	Muttia	1934-35	10-4-35	12A						0	180	9900	5.48	13.02	12.0	81.2	974	106.0	2435	4	0.8	13.4	83	70
2714	Muttia	1934-35	10-4-35	12B						0	187	7500	5.31	14.08	11.0	105.1	1251	201.0	2399	4	0.5	14.2	83	70
3113	Muttia	1935-36	12-3-36	10A	10	17.8	9.3	0.2	25.6	6	100	9900	5.21	12.03	10.2	87.7	805	200.2	2155	3	1.0	12.2	83	64
3113	Muttia	1935-36	19-3-36	12A						22	180	9050	5.43	13.02	12.6	65.1	680	182.6	2207	4	1.2	13.4	87	00
3113	Muttia	1935-36	19-3-36	12B						0	184	7450	5.43	14.03	12.6	60.1	836	200.8	2180	4	1.0	14.1	88	00
3540	Muttia	1936-37	6-4-37	10A	10	21.7	11.0	0.3	31.3	18	204	7000	5.60	12.03	10.2	63.1	670	236.4	2366	4	1.0	12.1	80	05
3540	Muttia	1936-37	6-4-37	12A						15	180	7200	5.43	13.02	12.2	72.7	887	104.1	2204	4	1.2	13.5	85	00
3540	Muttia	1936-37	6-4-37	12B						22	104	7700	5.54	14.08	12.3	86.1	1047	100.8	2342	1	1.0	11.2	84	07
4073	Muttia	1937-38	27-5-38	8	10	14.7	0.8	0.1	23.2	0	211	6500	5.60	11.31	8.3	98.6	619	201.0	2361	2	0.5	10.0	01	00
4073	Muttia	1937-38	27-5-38	10A						0	103	6900	5.32	12.63	10.2	78.2	708	220.0	2244	3	0.5	11.8	01	09
4073	Muttia	1937-38	27-5-38	10B						0	208	7500	5.43	13.58	10.1	105.0	1070	239.0	2342	3	0.8	12.0	01	09

* The ring frame front roller diameter—1". Diameter of ring—11".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

7.—PUNJAB-AMERICAN COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
1352	Punjab-American	Khanewal	1931-32
1882	"	Burewala	1932-33
2237	"	Khanewal	1933-34
2732	"	Chinchwatni	1934-35
3114	"	Phularwan	1935-36
3566	"	Khanpur	1936-37
3938	"	Mian Channu	1937-38

1. SPINNING TESTS.

1. *Treatment* :—

(a) *Blow-room*.—Upto 1933-34 (inclusive) :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 (inclusive) :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—Same as above but spun from single hank roving on Ring Frame No. 3, which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. *Spinning Master's Report* :—(a) *Cotton* :—

	PUNJAB-AMERICAN.						
	1931-32.	1932-33.	1933-34.	1931-35.	1935-36.	1936-37.	1937-38.
Colour	Creamy-white.	White to creamy-white.	White to creamy-white; bright.	White to creamy-white.	White to creamy-white; bright.	Creamy-white to white.	White.
Cleanliness	Leafy; stained noticeably.	Somewhat leafy.	A little leafy.	Stained; fairly leafy.	A little leafy.	Fairly clean.	Fairly clean.
Feel	Softish.	Good.	Smooth good.	Good.	Good smooth.	Good.	Good.
Ginning and neppiness	Fairly well-ginned.	Well-ginned.	Well-ginned but a triffo knotted.	Fairly well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.
Seeds	1.1% unginned.	..	..	..	..	..	Some undeveloped.
Card Silver	A little leafy.	Almost clean.	Clean.	Clean.	Clean.	Almost clean.	Clean.
Card Web	Somewhat neppy.	Good.	A little neppy.	Good.	Good.	Good; nepp-free.	Good; almost nepp-free.
Weight of 10 flat strips	21.6 grams.	25.5 grams.	21.5 grams.	24.5 grams.	13.7 grams.	17.4 grams.	10.1 grams.
Remarks .. ..	..	..	..	..	..	..	..

(b) *Yarn* :—

	PUNJAB-AMERICAN.						
	1931-32.	1932-33.	1933-34.	1931-35.	1935-36.	1936-37.	1937-38.
Cleanliness	Fairly clean.	Clean.	Clean.	Almost clean.	Clean.	Slightly leafy.	Almost clean.
Evenness	Somewhat uneven	Fairly even.	Even in the two lower counts.	Fairly even.	Even.	Fairly even.	Fairly even.
Neppiness	A little neppy.	Practically free of nepp.	Free of nepp.	A little neppy.	Almost nepp-free.	Almost free of nepp.	Fairly free of nepp.
Slubbiness	Slabby.	A triffo slubby.	..	Somewhat slubby.	..	..	..

3. *Spinning Test Details and Results* :—See Table 7 on page 21.

II.—REPORT OF THE STANDARDS COMMITTEE FOR PUNJAB-AMERICAN.

PUNJAB-AMERICAN.							
	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
(Contract valued under	F.G.M.G. Branch No. 2	F.G.M.G. Branch No. 2, July/Aug. 1933 delivery.	F.G.M.G. Branch Hedge Contract No. 2, Apr./May 1934.	F.G.M.G. Branch Hedge Contract No. 2, Apr./May 1935.	F.G.M.G. Branch Hedge Contract No. 2, Apr./May 1936 delivery.	F.G.M.G. Branch Hedge Contract No. 2, Hedge Contract No. 2.	F.G.M.G. Branch Hedge Contract No. 2.
Quality	About Fully Good	Fine	Fine to Superfine	Superfino	Superfino	Superfino	Barely fino.
Colour	Dull-white	Creamy-white	Greyish-white	White	Creamy-white	White, very slightly creamy.	Dull white.
Staple Length	3/4 inch	3/4 inch	Barely 3/4 inch	9/16 to 3/4 inch	13/16 inch	Full 3/4 inch	11/16 inch.
Staple Strength	Good	Fair	Good	Poor	Good	Good	Fair.
Irregularity	Somewhat irregular	Irregular	Irregular	Very irregular	Regular	Regular	Slightly irregular.
Value above or below contract rate	Rs. 10 on	Rs. 10 on	Rs. 13 on	Rs. 10 on	Rs. 25 on	Rs. 15 on	Rs. 15 on.
Remarks	Rs. 104	F.G.M.G. Branch No. 2, July/Aug. 1933 delivery, Rs. 297.	F.G.M.G. Branch Hedge Contract No. 2, Apr./May 1934 delivery Rs. 197.	F.G.M.G. Branch Hedge Contract No. 2, Apr./May 1935 delivery Rs. 237.	F.G.M.G. Branch Hedge Contract No. 2, Apr./May 1936 delivery Rs. 180.	F.G.M.G. Branch Hedge Contract No. 2, Hedge Contract No. 2, Apr./May 1937 delivery Rs. 260.	F.G.M.G. Branch Hedge Contract No. 2, April/May 1938 delivery, Rs. 172.
Date of Valuation	30-5-32	26-7-33	9-1-34	15-4-35	2-3-36	5-1-37	2-2-38
Remarks							

Table 7.—SPINNING TEST RESULTS FOR PUNJAB-AMERICAN COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample, lbs.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.						TEMPERATURE ABOVE 60° F.		RELATIVE HUMIDITY (%).		
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per Inch.	LEA.			BALISTIC.			Revolutions class.	Steps per yard.	Turns per Inch, Actual.		Spiraling Room.	Testing Room.
															Counts Actual.	Count-Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Machine (Inch-lbs.)	Count-Work Product.						
1322	Punjab/American.	1931-32	6-6-32	10A	10	11.7	11.5	0.0	22.3	10	102	3320	5.10	15.07	15.8	82.8	1308	15.7	182.0	2837	1	2.2	15.5	10	65	
1352	"	1931-32	7-6-32	20A		..	..	..	..	105	189	9200	6.34	17.08	20.2	54.0	1048	20.4	112.1	2293	5	2.0	17.1	03	70
1822	Punjab/American.	1932-33	19-8-33	10A	10	8.9	13.5	0.5	21.5	213	180	8000	5.11	15.07	15.8	83.4	907	15.5	170.0	2635	4	1.2	15.1	80	70	
1882	"	1932-33	19-8-33	20A		..	..	..	..	224	170	8700	5.03	17.08	20.1	37.8	760	10.8	112.0	2218	5	1.6	17.0	87	70
2237	Punjab/American.	1933-34	10-4-34	10A	10	7.5	10.7	0.6	17.0	21	193	8700	5.02	15.07	16.1	85.7	1371	15.8	188.2	2674	1	0.8	15.3	87	66	
2237	"	1933-34	18-1-34	20A		..	..	..	..	57	189	9200	5.10	17.08	19.3	70.1	1353	10.5	140.1	2738	1	0.9	17.4	87	65
2237	"	1933-34	18-4-34	24B		..	..	..	..	80	170	9500	6.25	20.74	21.3	51.1	1219	24.6	90.6	2450	0	1.0	19.8	87	67
2732	Punjab/American.	1934-35	12-6-35	12	10	7.8	11.8	0.5	10.1	73	171	6500	4.32	13.02	12.1	56.8	704	12.2	104.0	2307	4	1.0	13.1	90	69	
2732	"	1934-35	5-6-35	10A		..	..	..	..	55	160	7100	3.51	13.07	15.6	38.9	697	15.7	122.8	1928	1	1.2	15.1	90	67
2732	"	1934-35	4-6-35	16B		..	..	..	..	48	170	9700	3.76	17.98	16.8	15.8	709	10.5	127.0	2105	1	1.0	16.9	90	66
3114	Punjab/American.	1935-36	12-3-36	10A	10	8.0	10.0	0.3	18.0	0	167	8650	5.55	15.97	10.1	102.1	1041	16.0	204.0	3201	3	1.0	15.5	81	60	
3114	"	1935-36	12-3-36	20A		..	..	..	..	10	190	9350	3.31	17.08	20.0	76.3	1526	10.9	141.0	2818	3	1.0	17.5	80	62
3114	"	1935-36	12-3-36	24A		..	..	..	..	27	171	9300	6.31	10.73	21.1	58.2	1403	23.0	115.0	2723	4	1.2	19.0	82	72
3566	Punjab/American.	1936-37	15-4-37	16A	10	8.5	10.2	0.1	18.1	18	193	8350	5.37	15.97	16.1	90.7	1187	16.1	207.0	3342	3	1.2	15.1	90	63	
3566	"	1936-37	14-4-37	20A		..	..	..	..	36	162	8500	5.00	17.08	20.4	70.0	1410	20.2	148.1	3000	3	1.0	17.1	80	70
3566	"	1936-37	15-4-37	24A		..	..	..	..	18	180	9300	5.07	19.73	21.9	53.2	1271	23.5	120.6	2740	1	1.2	19.0	91	69
3938	Punjab/American.	1937-38	8-2-38	10A	10	6.1	11.1	0.6	10.9	12	202	9650	5.73	15.97	16.1	85.3	1473	10.9	163.0	2018	3	1.0	15.1	80	63	
3938	"	1937-38	9-2-38	20A		..	..	..	..	73	165	9500	5.07	17.08	20.2	61.9	1250	10.9	110.1	2316	4	1.0	17.2	82	66
3975	"	1937-38	9-2-38	20B		..	..	..	..	57	168	10200	6.05	10.20	20.2	71.2	1109	10.9	122.2	2432	1	1.5	18.6	81	66

* Diameter of ring frame front roller—1". Diameter of rings—11".

† It is to be noted that the total loss is for a small sample weighing 10 lbs., or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

The performance of the 1934-35 sample is much below the average for this cotton.

8.—BROACH COTTON.

These samples have been very kindly supplied by the East India Cotton Association after inspection and approval by their Standards Committee, in accordance with an agreement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
1351	Broach	Miyagam	1931-32.
1782	"	Dabhoi	1932-33.
2235	"	Palej	1933-34.
2731	"	Broach	1934-35.
3263	"	Palej	1935-36.
3542	"	Amod	1936-37.
3543	"	Palej	1936-37.
4060	"	Broach	1937-38.

I. SPINNING TESTS.

Treatment :—

(a) *Blow-room*.—Upto 1933-34 (inclusive):—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards:—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust-trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards:—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

Spinning Master's Report :—

(a) Cotton :—

		BROACH.							
		1931-32.	1932-33	1933-34.	1934-35	1935-36.	1936-37.		1937-38.
							Amod.	Palej.	
..	..	White to creamy-white; brightish.	Creamy-white; bright.	White to creamy-white; bright.	White; brightish.	White to creamy-white.	White.	White to creamy-white; bright.	White to creamy-white.
ness ..	..	Fairly clean.	Clean.	Clean.	Fairly clean.	Fairly clean.	Fairly clean; a trifle stained	Clean.	Fairly clean
..	..	Good-bodied.	Good.	Smooth and bodied.	Good.	Softish.	Good bodied.	Softish.	Fairly good.
and Neppl-	..	Well-ginned.	Well-ginned	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.
..	..	1% unginned	2.2% unginned.	..	..	..	..	..	A few unginned.
ver..	..	Almost clean.	Clean	Clean.	Almost clean.	Clean	A little leafy.	Clean.	Fairly clean.
eb ..	..	Good.	Even and nep-free.	Good	Good	Good.	Almost free.	Good.	Good; free of nep.
of ten flat	..	16.2 grams.	15.4 grams.	16.9 grams.	21.9 grams	18.8 grams.	19.4 grams.	14.0 grams.	15.7 grams.
..

(b) Yarn :—

BROACH.									
		1931-32.	1932-33	1933-34.	1934-35.	1935-36.	1936-37		1937-38.
							Amod.	Palej	
ness ..	..	Clean.	Clean.	Fairly clean.	Almost clean	A little leafy.	Fairly clean.	Slightly leafy.	A little leafy.
..	..	Even	Even.	Fairly even	Even.	Fairly even.	Even.	Fairly even.	Even.
ness ..	..	A trifle neppy.	Free of nep	Almost free of nep.	A little neppy.	Almost free of nep	Almost free of nep.	Fairly free of nep.	Almost free of nep.
ness ..	..	..	..	..	A little slubby.	Slightly slubby	..	..	..

Spinning Test Details and Results :—See Table 8 on page 24.

II.—REPORT OF THE STANDARDS COMMITTEE FOR BROACH COTTON.

23

		Broach.						
		1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
							Amed.	Paloj.
Contract valued under	..	F. G. M. G. Broach No. 2.	F. G. M. G. Broach No. 2 April/May 1933.	F. G. M. G. Broach No. 2 April/May 1934.	F. G. M. G. Broach No. 2 April/May 1935 delivery.	F. G. M. G. Broach No. 2 July/Aug. 1936 delivery.	F. G. M. G. Broach No. 2.	F. G. M. G. Broach No. 2 April/May 1938 delivery.
Class	..	Strict fine.	Fine to Superfine.	Superfine to Extra Superfine.	Fine.	Fine.	Fine.	Fine.
Colour	..	White.	White but slightly creamy.	White.	White.	Creamy-white.	White.	Slightly creamy.
Staple Length	..	5/8 inch.	3/4 inch.	3/4 inch.	1 1/16 inch to 3/4 in.	5/8 inch.	3/4 inch.	1 1/16 inch.
Staple Strength	..	Good.	Good.	Fair.	Fair.	Fair.	Moderate.	Fair.
Regularity	..	Regular.	Regular.	Regular.	Regular.	Regular.	Regular.	Fair.
Value above or below contract rate	..	Rs. 2 on.	Rs. 8 on.	Rs. 12 on.	Rs. 7 on.	Rs. 3 on.	Rs. 3 on.	Rs. 4 on.
Basis	..	Rs. 104.	F. G. M. G. Broach No. 2 April/May 1933 delivery Rs. 202.	F. G. M. G. Broach No. 2 April/May 1934 delivery Rs. 197.	F. G. M. G. Broach No. 2 April/May 1935 delivery Rs. 237.	F. G. M. G. Broach No. 2 July/Aug. 1936 delivery Rs. 223.	F. G. M. G. Broach No. 2 April/May delivery Rs. 246.	F. G. M. G. Broach No. 2 April/May 1938 delivery Rs. 159.
Date of Valuation	..	30-5-32.	24-5-33.	9-4-34.	15-4-35.	24-6-36.	16-3-37.	10-5-38.
Remarks	..	..	..	..	..	..	..	..

Table 8.—SPINNING TEST RESULTS FOR BROACH COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Sample No.	Cotton.	Section.	Date of spinning.	Cottons Spinning	Cottons Spinning	Weight of Sample, lbs.	WASTE PERCENTAGES				RING FRAME PARTICULARS*				YARN TEST RESULTS				TO SPIN IN YARN				Tearing Room.	Tearing Room.		
							Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss †	Yarn Breakages per 100 spindles per hour.	Front, Back, & Sides, in P.M.	Spindle Speed, in P.M.	Draft	Turns per inch	Count—Actual	Strength (lbs.)	Count Strength	Counts—Actual	Work of Rupture (lb.)	Evenness Class	Reps per yard			Turns per inch—Actual	Spinning Room
1351	Broach	1031-32	6-6-32	12	10	0.0	8.0	0.0	15.0	8.0	206	7400	4.15	13.02	12.2	92.5	112.5	10.2	211.0	200	3	2.5	13.3	00	69	03
1351	Broach	1031-32	6-6-32	104	10	0.0	0.0	0.0	0.0	8.0	180	8000	5.32	13.07	10.0	57.0	020	10.2	120.8	205.1	4	2.0	15.3	00	05	06
17-2	Broach	1032-33	20-5-33	12	10	7.5	8.0	0.4	16.0	51	205	7800	5.00	13.02	12.7	90.5	1220	12.0	207.0	201.0	3	1.0	13.4	00	00	03
17-2	Broach	1032-33	20-5-33	104	10	0.0	0.0	0.0	0.0	12	177	7800	5.31	15.07	15.0	71.0	1143	10.4	155.0	255.2	4	1.5	15.5	00	07	70
22-15	Broach	1033-34	16-4-34	12	10	0.2	10.0	0.5	10.0	7	205	7800	4.00	13.02	12.7	90.1	1223	12.2	216.0	204.1	7	1.0	13.3	00	03	06
22-15	Broach	1033-34	17-4-34	104	10	0.0	0.0	0.0	0.0	01	180	7800	5.21	15.07	16.3	60.7	1081	10.1	137.2	250.0	4	1.0	15.1	00	03	06
27-31	Broach	1034-35	5-6-35	12	10	0.0	11.3	0.3	17.4	20	184	7200	5.13	13.02	12.1	90.0	1184	12.2	207.2	252.5	3	1.5	13.4	00	00	03
27-31	Broach	1034-35	4-6-35	104	10	0.0	0.0	0.0	0.0	24	174	7800	5.70	15.07	10.2	57.4	980	10.0	156.4	250.2	3	1.0	15.4	00	07	05
27-31	Broach	1034-35	4-6-35	103	10	0.0	0.0	0.0	0.0	24	184	8000	5.80	17.08	10.0	69.0	1160	10.5	158.8	262.0	3	1.2	15.1	00	07	00
32-61	Broach	1035-36	6-7-36	12	10	7.2	10.2	0.5	17.0	54	194	7450	5.54	15.02	12.0	78.8	960	12.1	101.2	291.1	4	1.2	13.5	97	71	70
32-61	Broach	1035-36	6-7-36	104	10	0.0	0.0	0.0	0.0	91	180	8000	5.07	15.07	15.9	53.1	839	13.0	180.0	207.7	4	0.8	15.4	87	74	72
32-61	Broach	1035-36	1-7-36	103	10	0.0	0.0	0.0	0.0	12	192	9500	5.78	17.04	10.1	72.5	1167	10.2	133.0	210.1	5	1.0	15.3	85	77	60
33-12	Broach	1036-37	25-3-37	12	10	0.3	8.6	0.3	14.5	15	200	7600	5.20	13.02	11.0	110.6	1300	12.1	231.0	270.5	3	0.8	13.1	85	69	03
33-12	(Vined)	1036-37	25-3-37	14	10	0.0	0.0	0.0	0.0	7	200	8000	5.21	14.04	13.0	92.5	1220	11.3	180.0	270.5	3	0.8	14.4	85	65	06
35-12		1036-37	25-3-37	104	10	0.0	0.0	0.0	0.0	12	190	8000	5.08	15.07	10.2	72.0	1160	10.0	117.8	240.5	4	1.0	15.4	85	68	04
35-13	Broach	1036-37	27-3-37	12	10	0.0	0.0	0.5	14.4	44	200	7700	5.20	13.02	12.1	84.1	1000	12.4	205.4	254.7	3	1.0	13.5	85	64	07
35-13	(Pale)	1036-37	21-3-37	14	10	0.0	0.0	0.0	0.0	29	204	8450	5.21	14.08	13.9	68.4	914	13.8	173.8	240.4	4	1.5	11.7	85	63	03
35-14		1036-37	25-3-37	104	10	0.0	0.0	0.0	0.0	18	100	8000	5.41	15.07	15.4	55.0	847	16.1	180.4	210.5	5	1.5	15.4	86	67	04
40-00	Broach	1037-38	20-5-38	12	10	0.0	0.0	0.4	15.0	7	215	8200	5.11	13.02	12.1	91.2	1104	12.0	212.4	251.0	3	0.5	13.3	81	68	67
40-00	Broach	1037-38	21-5-38	14	10	0.0	0.0	0.0	0.0	22	201	8200	5.32	14.08	13.0	70.5	1083	14.0	178.8	250.3	3	0.5	14.4	81	60	04
40-00	Broach	1037-38	20-5-38	104	10	0.0	0.0	0.0	0.0	21	100	8700	0.10	15.07	10.2	55.8	004	10.0	150.5	250.0	3	0.8	15.4	81	68	03

* Diameter of ring frame front roller—1½". Diameter of ring—1½".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

9.—JAGADIA COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
1047	Jagadia.	Jagadia.	1930-31.
1355	"	"	1931-32.
1786	"	"	1932-33.
2296	"	"	1933-34.
2733	"	"	1934-35.
3262	"	"	1935-36.
3544	"	"	1936-37.
4255	"	"	1937-38.

I.—SPINNING TESTS.

1. *Treatment* :—

(a) *Blow-room*.—Upto 1933-34 (inclusive):—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards:—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover, and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards:—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. *Spinning Master's Report* :—(a) *Cotton* :—

		JAGADIA.							
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Colour	.. ..	White to creamy-white; bright.	White; bright.	White; brightish.	White to creamy-white; bright.	White brightish.	White to creamy-white; brightish.	White to creamy-white.	White; bright.
Cleanliness	.. ..	Fairly clean.	S a m e w h a t leafy.	Fairly clean.	Fairly clean.	A little stained; fairly clean.	Fairly leafy.	Contains leaf.	A little leafy.
Feel	.. ..	Good silky.	Good soft.	Good softish.	Good soft.	Good.	Good smooth.	Soft.	Good smooth.
Ginning and neppiness	.. ..	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.
Seeds	.. ..	..	1.5% unginned.	..	..	..	..	..	..
Card silver	.. ..	Clean.	Clean.	Clean.	Clean.	Clean.	Clean.	Almost clean.	Fairly clean.
Card web	.. ..	Good.	Good.	Even and nep-free.	Full and free of nep.	Web good.	Even; nep-free.	Slightly neppy.	A little neppy.
Weight of ten flat strips	.. ..	10.5 grams.	13.2 grams.	14.0 grams.	15.0 grams.	16.3 grams.	16.5 grams.	14.8 grams.	14.4 grams.
Remarks	.. ..	..	..	..	..	..	..	..	..

(b) *Yarn* :—

		JAGADIA.							
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Cleanliness	.. ..	Clean.	Clean.	Clean.	Clean.	Fairly clean.	A little leafy.	Almost clean.	Fairly clean.
Evenness	.. ..	Even.	Even.	Fairly even.	Even.	Even.	Even.	Fairly even.	Even.
Nepiness	.. ..	Fairly free of nep.	Almost free of nep.	Almost nep-free.	Almost free of nep.	Fairly free of nep.	Practically free of nep.	Fairly neppy.	Fairly free of nep.
Slubbiness	.. ..	..	..	..	..	..	..	..	..

3. *Spinning Test Details and Results* :—See Table 9 on page 27.

Table 9.—SPINNING TEST RESULTS FOR JAGADIA COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample, lbs.	WASTE PERCENTAGES.				RING FRAME PARTICULARS. *				YARN TEST RESULTS.										TEMPERATURE (° F.).	RELATIVE HUMIDITY (%).	Testing Room.	
						Mow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per Inch.	LGA.			DILUATIO.			Eveeas class.	Neps per yard.	Turns per Inch Actual.				Spinning Room.
															Counts Actual.	Stretch (Inch.)	Count-Stretch	Counts Actual.	Work of Rupture (Inch-lbs.)	Count-Work							
1017	Jagadia ..	1930-31	11-5-31	20	10	8.3	8.0	0.5	10.0	34	100	0,800	0.41	17.08	10.9	77.4	1,540	20.5	113.2	2,321	3	1.7	17.4	00	03	67	
1047	Jagadia ..	1930-31	12-5-31	24		..	..	..	..	0	173	0,900	0.50	10.73	21.1	61.0	1,470	21.4	97.2	2,372	4	1.5	10.1	00	05	97
1047	Jagadia ..	1930-31	12-5-31	30		..	..	..	..	23	150	0,800	7.83	23.11	20.8	15.4	1,333	30.3	70.4	2,400	5	2.0	22.2	80	00	60
1355	Jagadia ..	1931-32	0-6-32	20	10	8.0	7.5	0.6	15.3	50	194	0,500	5.05	17.08	20.0	70.0	1,592	20.2	120.4	2,553	3	1.2	17.1	91	97	09	
1355	Jagadia ..	1931-32	0-6-32	24		..	..	..	..	24	177	0,550	7.14	10.73	21.1	50.3	1,429	21.1	101.6	2,419	4	1.2	19.0	92	69	00
1355	Jagadia ..	1931-32	8-6-32	30		..	..	..	..	10	100	0,000	7.09	21.89	20.2	17.1	1,375	20.8	84.6	2,521	4	1.8	21.3	91	90	08
1786	Jagadia ..	1932-33	1-6-33	24	0	9.0	8.8	0.5	10.5	11	180	0,030	5.54	10.73	23.9	63.2	1,510	23.7	108.9	2,570	4	1.2	10.1	89	93	70	
1786	Jagadia ..	1932-33	1-6-33	30		..	..	..	..	122	168	0,400	6.71	21.80	20.9	40.1	1,383	30.3	82.1	2,107	5	2.0	21.3	91	93	70
2290	Jagadia ..	1933-34	22-5-34	20	10	0.6	9.5	0.3	14.3	10	103	0,730	5.83	17.08	20.2	88.9	1,701	20.9	133.9	2,933	3	1.8	17.3	00	08	09	
2296	Jagadia ..	1933-34	22-5-34	24		..	..	..	..	0	180	0,300	5.45	10.73	23.9	72.0	1,735	21.2	111.8	2,706	4	1.8	10.1	00	08	08
2290	Jagadia ..	1933-34	22-5-34	30		..	..	..	..	20	159	0,500	6.71	21.86	20.5	53.6	1,581	20.9	89.1	2,043	5	1.5	21.2	88	93	70
2733	Jagadia ..	1934-35	5-6-35	20	10	7.5	8.3	0.4	15.0	10	192	0,200	5.05	17.08	20.5	75.5	1,518	20.5	120.9	2,305	3	1.8	17.1	88	90	00	
2733	Jagadia ..	1934-35	6-6-35	24		..	..	..	..	30	170	0,500	5.33	10.73	24.0	61.0	1,536	21.3	108.2	2,929	3	1.5	10.0	90	97	08
2733	Jagadia ..	1934-35	6-6-35	30		..	..	..	..	17	142	8,300	0.07	21.86	20.1	48.0	1,423	29.7	80.4	2,055	5	2.0	21.3	89	93	08
3202	Jagadia ..	1935-36	3-7-30	20	10	7.5	8.8	0.3	15.9	5	190	0,550	5.05	17.08	20.1	83.1	1,771	20.2	128.9	2,503	3	1.0	17.2	80	77	08	
3262	Jagadia ..	1935-36	3-7-30	24		..	..	..	..	0	171	0,000	5.55	10.73	23.9	70.0	1,073	23.0	100.4	2,543	4	1.5	18.8	87	70	08
3262	Jagadia ..	1935-36	4-7-30	30		..	..	..	..	20	152	0,550	0.94	21.86	20.7	49.7	1,170	30.2	88.0	2,507	4	1.0	20.8	87	75	70
3544	Jagadia ..	1936-37	25-3-37	20	10	7.2	8.3	0.3	15.2	5	185	0,400	0.22	17.08	20.1	85.8	1,725	20.3	133.2	2,704	3	2.5	17.3	86	90	07	
3544	Jagadia ..	1936-37	29-3-37	24		..	..	..	..	18	160	0,450	5.20	10.73	23.1	73.0	1,986	21.1	110.0	2,051	4	3.2	10.1	80	97	07
3544	Jagadia ..	1936-37	31-3-37	30		..	..	..	..	3	153	0,400	0.83	21.80	20.0	51.0	1,527	23.9	80.9	2,503	5	3.5	21.1	85	97	07
4255	Jagadia ..	1937-38	26-6-38	20	10	7.1	8.7	0.4	15.5	0	215	10,300	5.93	17.08	20.1	101.7	2,044	10.8	133.0	3,011	3	0.8	17.2	87	72	83	
4255	Jagadia ..	1937-38	26-6-38	24		..	..	..	..	5	192	10,100	5.31	10.73	23.9	83.1	1,061	23.5	121.2	2,849	4	0.8	13.7	89	98	83
4255	Jagadia ..	1937-38	26-6-38	30		..	..	..	..	10	197	0,900	0.71	21.80	30.0	53.0	1,710	20.0	92.2	2,720	4	1.0	20.0	89	71	83

*Diameter of ring frame front roller—7/8". Diameter of ring—1 5/8".

It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

10.—SURAT COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
1022	Surat.	Surat.	1930-31.
1353	Surat.	Kosamba.	1931-32.
1783	Surat.	Surat.	1932-33.
2236	Surat.	Surat.	1933-34.
2837	Surat.	Surat.	1934-35.
3163	Surat.	Surat.	1935-36.
3545	Surat.	Ankleshwar.	1936-37.
4061	Surat.	Surat.	1937-38.

I.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1933-34:—Porcupine, Crighton (twice), Hopper, Scutcher (3 times). 1934-35 onwards:—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34:—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards:—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	SURAT.							
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Colour	White to creamy-white.	White bright.	Creamy-white; bright.	White to creamy-white; bright.	White to creamy-white; bright.	White; bright.	White; bright.	White.
Cleanliness ..	Fairly clean; very bright.	Somewhat lealy.	Fairly clean.	Clean ..	Fairly lealy ..	Clean ..	Contains a little leaf; a trifle stained.	A trifle lealy.
Feel	Very soft.	Soft ally.	Good smooth.	Good soft.	Good.	Smooth and bodied.	Soft.	Good soft.
Ginning and Nappiness, Seeds	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Fairly well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.
Card Silver ..	Clean.	Almost clean.	Almost clean.	Clean.	Good amount of uncleaned seeds.	Clean.	Almost clean.	Fairly clean.
Card Web ..	Very good.	Fairly good.	Even and nep-free.	Good.	A little lealy.	Free.	A little neppy.	A trifle neppy.
Weight of ten fist strips ..	11.0 grams.	14.3 grams.	15.1 grams.	14.7 grams.	18.1 grams.	12.3 grams.	13.4 grams.	13.7 grams.
Remarks .. ..	..	..	..	..	..	..	..	..

(b) Yarn :—

	SURAT.							
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Cleanliness ..	Fairly clean.	Clean.	Clean.	Clean.	Clean.	Almost clean.	Almost clean.	Almost clean.
Evenness ..	Even.	Even.	Fairly even.	Fairly even.	Even.	Even.	Even.	Even in the last counts only.
Neplessness ..	Practically free of nep.	Almost free of nep.	Free of nep.	Fairly free of nep.	A little neppy.	Free of nep.	Slightly neppy.	Fairly free of nep.
Slubbiness ..	..	..	..	..	Occasionally slubby.	..	..	..

3. Spinning Test Details and Results :—See Table 10 on page 30.

III.—REPORT OF THE STANDARDS COMMITTEE FOR SURAT COTTON.

[illegible]

Table 10.—SPINNING TEST RESULTS FOR SURAT COTTON.

No.	Date	Time of day	Count's Actual	WASTE EXTRACTORS.				RING FRAME PARTICULARS.				YARN TEST RESULTS.						TEMPERATURE		REMARKS				
				WASTE EXTRACTORS.				RING FRAME PARTICULARS.				YARN TEST RESULTS.						Spinning Room.	Tearing Room.					
				Blow Room.	Card Room.	Spinning Room.	Total Loss.	Yarn Strength per 100 lbs.	Front Roller Speed, R.P.M.	Spindle Speed, R.P.M.	Dial.	Turns per Inch.	Counts Actual.	Strength (lbs.)	Count Strength.	Counts Actual.	Work of Rupture (lb.-in.)				Count Work Product.	Evenness Class.	Steps per yard.	Turns per inch.
122	1912-31	11-4-31	21	10	7.0	7.5	0.5	14.5	0	180	9700	0.10	10.73	23.8	4185	23.0	104.8	2102	3	1.2	18.8	00	05	Tearing Room.
123	1912-31	11-4-31	20						20	100	10000	8.03	24.53	30.4	1310	31.0	79.6	2108	4	1.7	23.5	01	07	Spinning Room.
124	1912-31	11-4-31	20	10	8.0	8.5	0.5	15.0	0	105	9650	5.05	17.09	20.2	1470	20.1	110.8	2348	3	1.2	17.3	00	07	
125	1912-31	11-4-31	21						32	178	9350	7.00	10.73	21.1	1385	23.7	84.2	2233	4	1.8	10.1	01	07	
126	1912-31	11-4-31	20						53	120	9360	6.91	21.80	20.0	1210	20.3	78.0	2280	4	2.0	21.2	01	07	
127	1912-31	11-4-31	20	10	7.2	8.2	0.5	15.2	114	105	9700	5.08	17.06	20.1	1131	20.1	125.2	2317	1	1.0	17.2	00	06	
128	1912-31	11-4-31	21						118	173	9650	0.22	10.73	24.0	1316	27.9	102.2	2413	5	1.2	18.8	01	06	
129	1912-31	11-4-31	20	10	6.0	7.5	0.5	14.3	5	103	9650	5.03	17.08	20.5	1839	20.7	130.8	2708	3	1.5	17.3	88	00	
130	1912-31	11-4-31	21						27	182	9800	3.13	10.73	21.4	1770	25.2	100.8	2591	4	1.2	10.1	89	00	
131	1912-31	11-4-31	20						30	160	9500	0.70	21.80	30.8	1513	31.0	80.2	2724	5	1.5	21.1	88	70	
132	1912-31	11-4-31	10						30	140	9500	0.00	25.29	10.8	1322	10.1	60.0	2500	0	1.8	21.1	87	03	
133	1912-31	11-4-31	20	10	8.1	0.5	0.3	17.1	0	103	9700	6.87	17.09	20.2	2020	20.1	143.0	2880	3	2.2	17.1	81	80	
134	1912-31	11-4-31	20						7	100	9550	0.17	21.80	23.0	1091	20.1	91.8	2971	1	2.0	20.0	81	78	
135	1912-31	11-4-31	40						20	440	9000	8.83	25.29	10.7	1331	40.5	65.0	2857	5	1.8	21.1	85	70	
136	1912-31	11-4-31	20	10	3.4	7.0	0.2	10.4	0	101	9700	5.05	17.09	20.4	1665	20.5	110.0	2951	3	0.5	17.5	60	07	
137	1912-31	11-4-31	21						14	178	9650	5.33	10.73	24.1	1101	21.1	101.2	2542	4	1.0	10.1	80	09	
138	1912-31	11-4-31	20						30	119	8000	0.11	24.80	30.9	1105	31.3	80.4	2517	5	0.8	24.1	80	00	
139	1912-31	11-4-31	20	10	7.0	8.1	0.3	15.0	0	106	9500	6.10	17.04	20.2	1705	20.3	128.9	2045	3	1.8	17.1	80	08	
140	1912-31	11-4-31	21						23	174	9150	5.37	10.73	23.4	1791	29.0	113.0	2043	4	2.2	10.0	85	00	
141	1912-31	11-4-31	20						10	157	9100	0.22	21.80	28.7	1004	27.8	93.2	2501	4	2.5	21.3	85	07	
142	1912-31	11-4-31	20	10	6.2	8.1	0.5	14.3	5	214	10000	5.93	17.09	20.4	1803	20.1	110.2	2930	2	1.0	17.2	00	00	
143	1912-31	11-4-31	30						17	178	10500	6.13	21.60	29.0	1713	20.1	93.4	2710	4	1.0	21.1	93	08	
144	1912-31	11-4-31	40						27	138	9500	8.17	25.29	39.8	1331	38.5	71.4	2710	5	1.2	21.1	93	07	

* Diameter of ring frame front roller—1". Diameter of flutes— $\frac{1}{16}$ ". It is to be noted that the total 10.4% for a small sample weighing 10 lbs. for bulk sample spun under mill conditions it would be less than shown here.

11.—NAVSARI COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.	Sample No.	Cotton.	Place.	Season.
1048	.. Navsari	Navsari.	1930-31	2828	.. Navsari.	Navsari.	1934-35
1354	.. „	„	1931-32	3162	.. „	„	1935-36
1784	.. „	„	1932-33	3565	.. „	Mahuvar.	1936-37
2435	.. „	„	1933-34	4074	.. „	Navsari.	1937-38

I.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room.*—Upto 1933-34 :—Poreupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room.*—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	NAVSARI.							
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Colour	White to creamy-white; bright.	White; bright.	White to creamy-white; bright.	White; bright.	White; bright.	White; bright.	White.	White.
Cleanliness	Clean to fairly clean.	Fairly clean.	Fairly clean.	Clean.	Clean.	Clean.	Fairly clean; a trifle stained.	Clean.
Feel	Silky and bodied.	Very good.	Silky and bodied.	Smooth bodied.	Good.	Smooth and bodied.	Good.	Soft.
Ginning and Neppiness	Well-ginned.	Well-ginned.	Well-ginned.	Fairly well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.
Seeds .. ..	..	..	..	..	..	..	..	..
Card Silver	Clean.	Clean.	Clean.	Clean.	Soft; clean.	Clean.	Almost clean.	Clean.
Card Web	Very good.	Good.	Even and nepp-free.	Full.	Full.	Even and nepp-free.	Good.	A trifle neppy.
Weight of ten flat strips	8.1 grams; very light.	13.5 grams.	13.5 grams.	20.7 grams.	19.0 grams.	13.3 grams.	12.5 grams.	14.5 grams.
Remarks	A very desirable cotton.	..	..	..	..	..	..	..

(b) Yarn :—

	NAVSARI.							
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Cleanliness	Clean.	Clean.	Clean.	A little lanky.	Clean.	Clean.	Almost clean.	Almost clean.
Evenness	Even.	Even.	Fairly even.	Fairly even.	Even.	Very even.	Fairly even.	Even.
Neppiness	Fairly free of nepp.	Almost free of nepp.	Free of nepp.	Fairly free of nepp.	A trifle neppy.	Nepp-free.	Almost free of nepp.	Slightly neppy.
Shubbiness .. ..	..	..	..	..	..	..	..	..

3. Spinning Test Details and Results :—See Table 11 on page 33.

II.—REPORT OF THE STANDARDS COMMITTEE FOR NAVSARI COTTON.

		NAVSARI.									
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.		
Contract valued under	.. ..	F. G. M. G. Broach No. 2.	F. G. M. G. Broach No. 2.	F. G. M. G. Broach No. 2, April/May 1933.	F. G. M. G. Broach No. 2.	F. G. M. G. Broach Hodge Contract No. 2, July/August 1935 delivery.	F. G. M. G. Broach Hodge Contract No. 2, April/May 1936 delivery.	F. G. M. G. Broach H. C. No. 2.	F. G. M. G. Broach H. C. No. 2, April/May 1938 delivery.		
Class	.. ..	Superfino.	Fine to superfino.	Fine to superfino.	Fully good to fine.	Fine.	Barely superfino.	Fine to superfino.	Fine to superfino.		
Colour	.. ..	Greeny-white.	Greeny-white.	White but slightly creamy.	Greeny-white.	Greeny-white.	White.	White.	White; slightly creamy.		
Staple Length	.. ..	15/16 inch.	15/16 inch.	31/32 inch.	Barely one inch.	15/16 inch.	31/32 inch.	29/32 inch.	7/8 inch.		
Staple Strength	.. ..	Fairly good.	Good.	Good.	Fair.	Fair.	Good.	Fair.	Fair.		
Regularity	.. ..	Fairly regular.	Regular.	Regular.	Slightly irregular.	Fair.	Regular.	Slightly irregular.	Fair.		
Value above or below Contract rate	.. ..	Rs. 85 on.	Rs. 60 on.	Rs. 55 on.	Rs. 75 on.	Rs. 85 on.	Rs. 60 on.	Rs. 80 on.	Rs. 60 on.		
Moist	.. ..	Rs. 182.	Rs. 161.	F. G. M. G. Broach No. 2, April/May 1933 Rs. 202.	F. G. M. G. Broach No. 2, July/August 1933 delivery Rs. 221.	F. G. M. G. Broach H. C. No. 2, July/August 1935 delivery Rs. 224.	F. G. M. G. Broach H. C. Contract No. 2, April/May 1936 delivery Rs. 203.	F. G. M. G. Broach H. C. No. 2, April/May 1937 delivery Rs. 260.	F. G. M. G. Broach H. C. No. 2, April/May 1938 delivery Rs. 169.		
Date of Valuation	.. ..	5-5-31.	30-5-32.	24-5-33.	31-7-34.	13-8-35.	23-1-36.	6-1-37.	10-5-38.		
Remarks	.. ..	..	..	..	..	..	..	..	..

Table II.—SPINNING TEST RESULTS FOR NAVSARI

11 10 9 8 7 6 5 4 3 2 1

Table 11.—SPINNING TEST RESULTS FOR NAVSARI COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.						TEMPERATURE (°F.)		RELATIVE HUMIDITY (%).						
				Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per inch.	LEA.		BALISTIC.		Reverence Class.	Keps per yard.	Turns per inch. Actual.	Spiraling Room.	Testing Room.					
													Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.						Work of Rupture (inch-lb.)	Count-Work Product.			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
1048	Navsari ..	1030-31	11-5-31	20	83	6.6	7.2	0.4	13.7	0	100	9800	6.41	17.08	20.1	72.5	1457	20.2	117.2	2307	3	1.2	17.3	00	63	67
1018	Navsari ..	1030-31	12-5-31	24		..	..	..	..	0	178	9800	0.38	10.73	24.0	54.0	1206	24.1	98.2	2307	4	1.5	16.1	90	65	66
1048	Navsari ..	1030-31	12-5-31	30.1		..	..	..	..	37	166	9800	7.65	23.11	29.1	44.7	1301	29.7	81.0	2100	5	2.0	22.4	80	66	00
1351	Navsari ..	1031-32	7-0-32	26	10	5.5	7.7	0.4	13.1	0	165	9056	5.08	17.93	19.8	76.8	1506	10.8	135.6	2085	3	1.8	17.1	00	67	00
1351	Navsari ..	1031-32	7-0-32	24		..	..	..	..	32	178	9530	7.00	16.73	24.2	57.7	1306	24.6	90.1	2115	4	2.0	10.2	01	05	68
1354	Navsari ..	1031-32	8-0-32	30.1		..	..	..	..	40	150	9300	0.94	21.86	28.1	48.0	1303	28.2	87.0	2433	5	2.0	21.1	01	07	90
1781	Navsari ..	1032-33	30-5-33	21	0	6.2	8.0	0.4	14.1	73	178	9650	5.58	10.73	24.0	62.5	1306	23.7	161.4	2471	1	1.0	10.0	01	03	07
1781	Navsari ..	1032-33	31-5-33	30.1		..	..	..	..	60	151	9650	7.00	21.86	30.0	44.2	1326	20.7	84.2	2501	4	1.0	20.0	01	09	72
2135	Navsari ..	1033-34	9-8-34	20	10	5.0	10.4	6.3	15.6	0	167	9356	5.50	17.98	20.6	85.6	1763	20.3	181.4	2067	3	2.8	17.2	84	80	82
2135	Navsari ..	1033-34	9-8-34	30.1		..	..	..	..	10	102	9306	6.58	21.80	30.0	40.1	1173	20.4	88.2	2503	5	2.5	21.0	84	90	81
2135	Navsari ..	1033-34	9-8-34	31		..	..	..	..	39	146	9650	7.12	23.20	33.1	10.1	1340	33.1	78.8	2008	6	2.5	22.1	84	80	81
2929	Navsari ..	1034-35	20-8-35	20	10	5.9	10.0	0.5	15.8	16	166	9306	5.05	17.93	20.7	86.5	1701	20.7	134.3	2700	3	2.5	17.0	86	09	73
2929	Navsari ..	1034-35	21-8-35	21		..	..	..	..	5	178	9700	5.20	10.73	23.6	76.2	1708	23.8	116.0	2775	3	2.0	10.0	85	72	72
2929	Navsari ..	1034-35	24-8-35	30.1		..	..	..	..	30	157	9300	0.71	21.80	31.2	18.5	1513	31.5	85.4	2000	4	2.0	20.7	86	71	70
3102	Navsari ..	1035-30	30-1-30	20	10	3.3	7.0	0.3	16.1	5	165	9006	6.85	17.93	20.0	85.8	1716	10.9	125.2	2401	3	0.5	17.2	80	66	70
3102	Navsari ..	1035-30	30-4-36	24		..	..	..	..	27	178	9700	5.43	10.73	24.3	63.6	1343	24.1	161.6	2521	3	0.8	10.1	80	71	71
3102	Navsari ..	1035-30	1-5-36	30.1		..	..	..	..	26	156	8000	0.41	21.80	29.5	46.3	1464	29.6	85.8	2546	4	0.5	21.0	80	68	72
3565	Navsari ..	1036-37	13-4-37	20	10	5.5	8.0	0.4	11.2	10	216	10506	5.95	17.93	20.0	91.7	1831	16.8	135.4	2681	4	1.6	17.0	88	08	68
3565	Navsari ..	1036-37	13-4-37	24		..	..	..	..	27	178	9506	5.44	19.73	24.0	66.8	1003	23.9	116.0	2620	4	1.0	18.8	90	68	07
3565	Navsari ..	1036-37	14-1-37	30.1		..	..	..	..	23	166	9500	6.62	21.86	29.8	53.6	1507	28.7	86.2	2506	5	0.8	20.0	88	68	68
4074	Navsari ..	1037-38	25-5-38	20	10	5.6	8.0	6.3	13.4	6	214	10400	0.10	17.08	20.2	97.4	1607	20.6	152.6	3646	2	1.8	17.0	00	66	75
1074	Navsari ..	1037-38	30-5-38	24		..	..	..	..	14	163	10400	5.51	10.73	24.8	72.2	1791	24.5	111.6	2808	3	1.5	18.7	00	09	08
1074	Navsari ..	1037-38	30-6-38	30.1		..	..	..	..	20	180	10400	6.70	21.86	30.2	54.6	1040	30.1	93.0	2817	4	1.8	20.0	01	60	68

* Diameter of ring frame front roller— $\frac{3}{8}$ ". Diameter of rings— $1\frac{1}{8}$ ".

† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

12.—DHOLLERAS COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
724	Dhollerias (Fine) Vagadia	Wadhwan	1929-30.
725	" (Superfine) Vagadia	"	1929-30.
1126	Dhollem Vagadia	"	1930-31.
1368	" "	Limbdi	1931-32.
1886	" "	Kadi	1932-33.
2357	" "	Wadhwan	1933-34.
2830	" "	Manavadar	1934-35.
3231	" "	Bawla	1935-36.
3097	" "	Dhandhuka	1936-37.
4135	" "	Dhrangadhra	1937-38.

J.—SPINNING TESTS.

1. Treatment:—

(a) *Blow-room*.—Upto 1933-34 (inclusive):—Poreupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards:—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards:—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report:—

(a) Cotton:—

DHOLLERAS.										
Season	1929-30 (Fine)	1929-30 (Superfine)	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Colour	White to creamy white	Dullish white	creamy white.	Dullish white	White to creamy white; brightish.	White to creamy white; brightish.	Dullish white	White to creamy white; bright.	White to creamy white	White to white; dullish.
Cleanliness	Very leafy (some leaf stains), of good deal stained.	Leafy; slightly stained.	Leafy; occasional spot or stain.	Leafy.	Somewhat leafy.	Very leafy with occasional stains.	Stained; leafy.	Fairly leafy.	Very leafy.	Leafy.
Feel		Better feel than Fine Dhollerias	Somewhat soft.	Good.	Good.	Good.	Fairly Good	Good to leafy	Fairly Good.	Good.
Ginning and neppiness	Fairly well-ginned.	Fairly well-ginned.	Fairly well-ginned.	Well-ginned	..	Well-ginned.	Somewhat knotted.	Well-ginned.	Well-ginned.	Well-ginned.
Seeds	Occasional; a fair amount of unripe (4 to 5 per cent. seeds mostly un-ginned).	..	1.5% un-ginned	2.1% ginned and un-ginned	.. partly ginned.	3.5% un-ginned (kaps).	..	..	..	Some un-ginned.
Card Silver	Clear.	Clear.	A little leafy.	Almost clean.	Clean.	Fairly clean	Almost clean.	Almost clean.	Good; a little leafy.	A trifle leafy.
Card Web	Clear.	Clear.	Even and practically nep-free.	Good.	Even and nep-free.	Good.	Good.	Good.	Good; a little neppy.	A trifle neppy.
Weight of 16 bat strips	10.0 grams.	..	11.2 grams.	12.5 grams.	13.0 grams.	20.2 grams.	24.0 grams.	15.4 grams.	23.5 grams.	29.5 grams.
Remarks	A poor, very sample.	Staple for 14 length but irregular in length and strength	Fully pressed.	Fully pressed.	..	..	..	..	..	..

(b) Yarn:—

DHOLLERAS.										
Season.	1929-30 (Fine)	1929-30 (Superfine)	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Cleanliness	Fairly clean	Clean	Fairly clean	Clean	Clean	Clean	Fairly clean	Almost clean.	Fairly clean	Fairly clean.
Evenness	Fairly even.	Somewhat uneven.	Fairly even.	Even	Even	Even	Even	Even	Even	Even.
Neppiness	A little neppy.	A little neppy.	Free of nep.	Free of nep.	Free of nep.	Slightly neppy.	Almost free of nep.	Practically free of nep.	Fairly free of nep.	Fairly free of nep.
Slubbiness	Slubby	Slubby	..	..	..	..	..	..	..	..

3. Spinning Test Details and Results:—See Table 12 on page 36.

II.—REPORT OF THE STANDARDS COMMITTEE FOR DHOLLERAS COTTON.

[illegible]

Table 12.—SPINNING TEST RESULTS FOR DHOLLERAS COTTON.

Sample No.	Cotton.	Evening.	Date of Spinning.	Counts Normal.	Weight of Sample, (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS *				YARN TEST RESULTS.										TEMPERATURE HUMIDITY (%)	
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per inch.	L.R.A.			HAYMASTIC.			Knots per yard.	Twists per inch. Actual.	Spinning Room.	Testing Room.	
															Counts Actual.	Strength (lbs.)	Coast-Summed Product	Counts Actual.	Work of Ring (incl. id.)	Count-Work Product					
724	Dhollera	1029-30	7-5-30	203	10	10.0	10.0	0.7	25.5	50	100	..	0.70	17.08	10.8	48.0	808	10.8	80.8	1710	1	3.0	17.1	00	04
724	(Pine).	1029-30	7-5-30	203	10	..	..	..	..	10	172	..	0.70	20.23	10.5	57.3	1117	10.0	91.2	1846	5	2.5	10.1	00	05
725	Dhollera	1029-30	7-5-30	204	10	14.1	0.0	0.0	22.5	70	160	..	0.70	17.08	20.3	41.3	838	20.4	83.2	1097	5	2.5	17.2	00	04
725	(Superfine).	1029-30	7-5-30	203	10	..	..	..	..	45	172	..	0.70	20.23	20.0	53.8	1070	20.2	87.0	1757	5	3.7	10.3	00	03
1120	Dhollera	1030-31	24-7-31	10	0	14.2	11.8	0.0	24.8	40	108	8800	5.78	13.07	13.8	70.4	1207	10.3	120.0	2103	3	1.7	13.5	80	78
1120	Dhollera.	1030-31	23-7-31	204	10	..	..	..	..	110	170	8850	6.10	17.08	10.5	53.0	1072	10.9	102.8	2010	4	5.2	17.1	88	73
1120	Dhollera.	1030-31	24-7-31	203	10	..	..	..	..	70	187	10750	9.25	20.23	10.3	62.1	1230	10.8	110.2	2152	4	4.7	10.4	87	70
1308	Dhollera	1031-32	21-6-32	14	10	13.0	8.1	0.0	21.1	7	100	7750	6.00	11.08	13.6	65.0	1202	11.0	170.0	2380	3	0.8	11.1	89	05
1308	Dhollera.	1031-32	21-6-32	10	..	..	..	..	..	30	190	8300	5.00	15.07	10.0	79.3	1173	10.3	127.4	2077	3	0.5	12.3	00	00
1309	Dhollera.	1031-32	21-6-32	204	10	..	..	..	..	62	171	8100	5.71	17.08	10.4	58.1	1133	10.2	106.6	2047	4	0.8	17.2	00	06
1390	Dhollera.	1032-33	22-8-33	14	10	12.2	11.0	0.4	22.2	51	103	8250	6.21	11.08	11.0	81.1	1182	13.8	180.0	2008	3	0.5	11.0	85	00
1390	Dhollera.	1032-33	22-8-33	10	..	..	..	..	..	55	184	8900	5.00	15.97	15.8	72.0	1147	15.7	101.1	2351	1	1.0	13.1	85	71
2357	Dhollera.	1033-34	29-6-34	10	10	16.0	11.3	0.3	28.0	30	102	8250	6.11	13.07	10.1	70.4	1270	15.0	138.4	2310	3	1.3	15.3	80	75
2357	Dhollera.	1033-34	29-6-34	204	10	..	..	..	..	42	175	8550	5.88	17.08	10.0	60.2	1109	20.1	114.8	2307	1	1.8	17.3	80	80
2327	Dhollera.	1033-34	29-6-34	203	10	..	..	..	..	52	188	0800	5.80	10.20	20.0	62.3	1232	20.5	110.1	2203	4	2.0	14.5	80	80
2380	Dhollera.	1034-35	28-8-35	12	10	13.8	13.3	0.0	25.6	7	108	7350	5.25	13.02	12.3	100.0	1297	12.2	212.1	2520	3	1.0	13.3	57	71
2390	Dhollera.	1034-35	27-8-35	10	..	..	..	..	..	67	138	8050	5.33	13.07	13.1	70.0	1157	15.3	158.8	2130	3	0.8	15.1	57	71
2390	Dhollera.	1034-35	27-8-35	203	10	..	..	..	..	04	180	8500	6.71	10.20	20.2	61.7	1011	20.1	105.4	2110	1	1.0	18.5	87	70
3231	Dhollera.	1035-36	10-6-30	12	10	8.0	8.2	0.2	16.5	7	104	7350	5.21	13.02	12.7	97.1	1237	12.3	207.2	2549	3	0.8	13.5	83	69
3271	Dhollera.	1035-36	10-6-30	10	..	..	..	..	..	24	102	8500	5.33	13.07	13.7	73.1	1170	10.0	102.0	2512	1	1.0	13.4	80	08
3067	Dhollera.	1036-37	12-7-37	12	10	16.8	15.1	0.3	28.7	15	207	7800	5.42	13.02	12.5	101.2	1260	12.5	211.0	2070	3	1.8	13.5	84	70
3067	Dhollera.	1036-37	10-5-37	11	..	..	..	..	..	0	107	7800	5.21	11.08	11.0	86.1	1210	11.1	180.1	2028	3	1.5	14.5	85	78
3067	Dhollera.	1036-37	10-7-37	10	..	..	..	..	..	0	104	8200	5.05	13.07	10.0	68.1	1091	10.5	102.8	2000	5	1.8	15.1	81	77
4135	Dhollera.	1037-38	12-7-38	14	10	14.2	11.0	0.1	31.4	20	218	8000	5.21	14.08	11.0	118.3	1650	13.0	220.8	3153	3	0.8	11.4	83	82
4135	Dhollera.	1037-38	12-7-38	10	..	..	..	..	..	12	221	0000	5.08	13.07	10.0	101.2	1010	10.0	188.0	3008	3	0.5	13.4	84	82
4135	Dhollera.	1037-38	9-7-38	204	10	..	..	..	..	20	214	10100	5.78	17.08	20.3	70.0	1159	20.4	121.8	2540	4	0.8	17.4	81	80

* Diameter of ring frame front roller—1". Diameter of rings—11".
† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.
The 1937-38 sample has given exceptionally good results.

13.—KALAGIN COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
757	Kalagin	Manavadar	1929-30
1155	"	"	1930-31
1431	"	Porbunder	1931-32
1888	"	"	1932-33
2358	"	"	1933-34
2771	"	"	1934-35
3327	"	Manavadar	1935-36
3696	"	Porbunder	1936-37
4137	"	Manavadar	1937-38.

I. SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times). 1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust-trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

		KALAGIN.								
		1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Colour	..	Dull creamy-white; fairly bright.	Creamy-white.	White to creamy-white.	Creamy-white; brightish.	Creamy-white; fairly bright.	Creamy-white.	White to creamy-white; brightish.	White to creamy-white; brightish.	White to creamy-white.
Cleanliness	..	Very leafy indeed.	Very leafy.	Very leafy.	Very leafy.	Very leafy; not noticeably stained.	Very leafy.	Leafy.	Very leafy.	Very leafy.
Feel	..	..	Good-knotted.	..	Good.	Good-soft.	Good.	Good-smooth.	Good.	Good.
Ginning & Neppiness.	..	Fairly well-ginned.	A trifle knotted.	A trifle knotted and neppiness.	..	Well-ginned.	Fairly well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.
Seeds	..	2.5% unginned.	3.5% ginned and unginned.	Too many cut seeds besides 3-75% mainly unginned.	2.1% partly ginned and unginned.	2.35% clean and unginned.	Contains a good amount of partly ginned and full clean seeds.	..	A few seeds.	A few ginned.
Canal Silver	..	A little leafy.	A trifle leafy.	Leafy.	Leafy.	Leafy.	Leafy.	Leafy.	Very leafy.	Leafy.
Canal Web	..	..	Even and neppiness.	Fairly good.	Good.	Full.	Full.	Good.	Good; neppiness.	Full; a little neppiness.
Weight of 10 flat strips.	..	16.9 grams.	20.5 grams.	23.8 grams.	22.1 grams.	32.0 grams.	36.0 grams.	18.7 grams.	10.0 grams.	22.2 grams.
Remarks	..	Licker-in No. 1 all trash; a fair amount of leaf shed over beam and ring rails.	Fully pressed.	..	..	..	..	..	Very heavy strips; very much waxy in the blow-room and card.	Very waxy in blow-room and card.

(b) Yarn :—

		KALAGIN.								
		1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Cleanliness	..	Fairly leafy.	A little leafy.	A little leafy.	Leafy.	Very leafy.	Leafy.	Leafy.	Leafy.	Leafy.
Evenness	..	Fairly even.	Fairly even.	Even.	Fairly even.	Somewhat uneven.	Even.	Fairly even.	Fairly even.	Fairly even.
Neppiness	..	Free of nepp.	Fairly free of nepp.	Almost free of nepp.	Free of nepp.	Slightly neppiness.	...	A little neppy.	Fairly free of nepp.	A little neppiness.
Slubbiness	..	..	..	..	..	..	A little slubby	..	..	..

3. Spinning Test Details and Results.—See Table 13 on page 39.

II.—REPORT OF THE STANDARDS COMMITTEE FOR KALAGIN COTTON.

		KALAGIN.										
		1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.		
Contract valued under		F. G. M. G. Hooch. F. G. M. G. Hooch. F. G. M. G. Hooch. F. G. M. G. Hooch. F. G. M. G. Hooch. F. G. M. G. Hooch. F. G. M. G. Hooch. F. G. M. G. Hooch. F. G. M. G. Hooch. F. G. M. G. Hooch. F. G. M. G. Hooch.										
Class	..	..	..	..	..	..	..	..	..	..	..
Colour	..	..	..	..	..	..	..	..	..	..	..
Staple Length	..	..	..	..	..	..	..	..	..	..	..
Staple Strength	..	..	..	..	..	..	..	..	..	..	..
Regularity	..	..	..	..	..	..	..	..	..	..	..
Value above or below contract rate	..	..	..	..	..	..	..	..	..	..	..
Notes	..	..	..	..	..	..	..	..	..	..	..
Date of Valuation	..	..	..	..	..	..	..	..	..	..	..
Remarks	..	..	..	..	..	..	..	..	..	..	..

Table 13.—SPINNING TEST RESULTS FOR KALAGIN COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample, lbs.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*					YARN TEST RESULTS.										TEMPERATURE, AVERAGE, (°C.).	RELATIVE HUMIDITY (%).
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per inch.	I.P.A.			BALLISTINO.		Neeps per yard.	Twists per inch.	Spinning Room.	Testing Room.			
															Counts Actual.	Strength (lb.)	Count-Strength	Counts Actual.	Work of Ring (inch-lb.)					Count-Work Product.		
757	Kalagin ..	1929-30	14-6-30	20A	10	18.3	10.5	0.6	27.3	10	106	..	4.60	17.08	16.7	73.8	1454	20.2	2276	3	1.5	17.2	08	70		
757	Kalagin ..	1929-30	14-6-30	24	..	..	..	..	..	40	176	..	5.95	16.73	23.8	35.5	1321	24.4	1037	5	2.0	16.0	08	66
1155	Kalagin ..	1930-31	14-8-31	20A	16	15.3	12.5	0.0	26.4	74	161	8100	5.83	17.98	20.3	31.0	1634	20.4	2130	4	1.7	17.2	83	80		
1155	Kalagin ..	1930-31	14-8-31	20C	..	..	..	..	..	126	190	10350	5.05	20.23	16.7	67.1	1820	16.7	2216	4	2.0	16.4	74	81
1431	Kalagin ..	1931-32	23-8-32	20A	9	22.0	16.2	0.8	35.2	143	106	8300	5.13	17.08	20.2	31.7	1685	20.3	2083	3	1.2	17.2	00	71		
1431	Kalagin ..	1931-32	23-8-32	20C	..	..	..	..	..	211	106	10900	5.43	20.23	20.0	63.7	1274	16.7	2147	3	1.0	16.3	01	71
1888	Kalagin ..	1932-33	23-8-33	16A	16	18.3	14.7	0.3	30.5	24	182	8150	5.43	13.07	16.1	76.8	1236	16.4	2273	4	1.0	15.2	83	70		
1888	Kalagin ..	1932-33	23-8-33	20A	..	..	..	..	..	88	160	8350	5.43	17.03	16.7	61.7	1215	16.0	2185	5	1.2	10.6	87	68
2358	Kalagin ..	1933-34	30-6-34	14	10	15.8	16.8	0.0	33.2	106	190	7700	5.11	14.08	14.0	78.2	1093	13.7	2332	4	1.8	14.4	86	80		
2358	Kalagin ..	1933-34	29-6-34	16A	..	..	..	..	..	139	180	7800	6.83	15.07	16.1	88.6	643	16.3	1082	5	1.8	15.1	86	82
2358	Kalagin ..	1933-34	29-6-34	20B	..	..	..	..	..	143	100	8350	5.80	16.26	20.3	47.3	900	20.4	2016	5	2.0	16.1	85	80
2771	Kalagin ..	1934-35	19-7-35	14	10	13.0	16.8	0.2	32.5	22	216	8000	5.11	14.03	13.8	103.1	1456	13.7	2766	3	2.2	14.4	84	77		
2771	Kalagin ..	1934-35	20-7-35	16A	..	..	..	..	..	12	169	8850	5.63	15.07	16.3	81.6	1333	16.0	262.2	3	2.5	15.6	83	77
2771	Kalagin ..	1934-35	19-7-35	20B	..	..	..	..	..	21	182	9000	6.10	16.26	20.5	61.5	1201	20.5	2353	4	2.6	18.5	85	73
3327	Kalagin ..	1935-36	22-8-36	14	10	10.0	12.8	0.2	22.3	0	202	8350	5.31	14.08	14.3	102.7	1409	14.1	3000	4	1.5	14.5	85	77		
3327	Kalagin ..	1935-36	21-9-36	16A	..	..	..	..	..	6	164	8450	0.02	15.07	16.0	87.7	1103	16.0	2764	4	1.8	15.3	86	69
3327	Kalagin ..	1935-36	21-8-36	20B	..	..	..	..	..	21	194	10100	6.07	16.20	20.0	72.8	1456	16.6	2432	4	2.0	18.4	80	73
3066	Kalagin ..	1936-37	20-7-37	12	10	17.8	24.1	0.4	37.8	7	297	7650	4.60	13.02	11.8	106.8	1260	..	..	4	1.5	13.5	86	81
3600	Kalagin ..	1936-37	9-7-37	14	..	..	..	..	..	15	102	7750	6.24	14.08	13.8	76.0	1046	14.2	2340	4	1.0	14.3	86	77
3006	Kalagin ..	1936-37	12-7-37	16A	..	..	..	..	..	42	178	7600	5.33	15.07	10.1	66.0	911	16.3	2181	4	1.5	15.1	83	81
3006	Kalagin ..	1936-37	12-7-37	10B	..	..	..	..	..	6	188	8000	5.33	16.07	10.0	71.8	1149	15.8	2342	4	1.5	16.1	84	76
4137	Kalagin ..	1937-38	14-7-38	14	10	12.7	13.5	0.3	24.8	15	226	9000	6.26	14.08	14.1	101.0	1124	14.4	2087	4	1.2	14.6	85	76		
4137	Kalagin ..	1937-38	13-7-38	16A	..	..	..	..	..	6	108	9000	5.10	15.07	10.2	86.7	1405	16.4	2036	4	1.0	15.6	86	80
4137	Kalagin ..	1937-38	13-7-38	10B	..	..	..	..	..	12	216	9050	6.21	16.07	16.0	91.2	1514	16.2	3026	4	1.5	16.6	85	80

* Diameter of ring frame front roller—1". Diameter of rings—11".

† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample under mill conditions it would be less than shown here.

14.—KADI-VIRAMGAM COTTON.

These samples have been very kindly supplied by the East India Cotton Association inspection and approval by their Standards Committee, in accordance with an agreement made with the Association to supply to the Technological Laboratory, for samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
727	.. Kadi-Virangam	Kadi	.. 1929-30.
1161 1930-31.
1430	Jotana	.. 1931-32.
1887	Kadi	.. 1932-33.
2459	Virangam	.. 1933-34.
3326 1935-36.
3588	Kadi	.. 1936-37.
4136	Virangam	.. 1937-38.

I. SPINNING TESTS.

Treatment :—

(a) *Blow-room*.—Upto 1933-34 :—Poreupine, Crighton (twice), Hopper, Scutcher (3 times).

1935-36 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once). Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1935-36 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

Spinning Master's Report :—

(a) *Cotton* :—

KADI-VIRAMGAM.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1935-36.	1936-37.	1937-38.
	Creamy to greenish white.	White to greenish white.	White to greenish white.	Creamy-white; brightish.	White to creamy white.	White to greenish white; brightish.	White to greenish white.	White.
Leafy	Leafy.	Leafy; slightly stained.	Leafy.	Very leafy.	Slightly stained; leafy.	A little stained; leafy.	Leafy.	Leafy; a trifle stained.
Medicinal	Medicinal.	Medicinal.	Good.	Good.	Good.	Good.	Fairly good.	Good.
Well-ginned	Well-ginned.	Well-ginned.	..	Well-ginned.	Well-ginned.	A trifle knotted.	Well-ginned.	Well-ginned.
Far too much cut seed.	Far too much cut seed.	1.25% seeds.	Considerable number of cut besides 1.1% ginned and unginned.	1.2% unginned.	1.72% seeds.	..	..	A few ginned.
Clean.	Clean.	Fairly clean.	Clean.	Almost clean.	A little leafy.	A little leafy.	A little leafy.	A little leafy.
Clear.	Clear.	Even and nep-free.	Fairly good.	Good.	Good.	Fairly good.	Good.	A trifle neppy.
16.2 grams.	16.2 grams.	17.8 grams.	17.8 grams.	22.0 grams.	20.7 grams.	17.7 grams.	15.0 grams.	18.4 grams.
Fairly well-watered at the time of picking.	Fairly well-watered at the time of picking.	Fully-pressed.	..	Well-watered.	..	..	..	..

(b) *Yarn* :—

KADI-VIRAMGAM.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1935-36.	1936-37.	1937-38.
Clean	Clean.	Fairly clean.	Clean.	A trifle leafy.	Clean.	Almost clean.	Fairly clean.	Almost clean.
Even	Even.	Fairly even.	Fairly even.	Fairly even.	Fairly even.	Fairly even.	Even in the lower counts.	Even.
A little neppy	A little neppy.	A few neppy.	Fairly nep-free.	Free of nep.	Fairly neppy.	Fairly free of nep.	Fairly free of nep.	Fairly free of nep.
Slubby	Slubby.	..	..	Occasional slub.	..	..	..	..

Spinning Test Details and Results :—See Table 14 on page 42.

II.—REPORT OF THE STANDARDS COMMITTEE FOR KADI-VIRAMGAM.

KADI-VIRAMGAM.

	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1935-36.	1936-37.	1937-38.
Contract valued under	F. G. M. G. Branch No. 2.	F. G. M. G. Branch No. 2.	F. G. M. G. Branch No. 2.	F. G. M. G. Branch No. 2, July/Aug. 1933 delivery.	F. G. M. G. Branch Hedge Contract No. 2.	F. G. M. G. Branch Hedge Contract No. 2, July/Aug. 1936 delivery.	F. G. M. G. Branch Hedge Contract No. 2, April/May 1937 delivery.	F. G. M. G. Branch Hedge Contract No. 2, July/Aug. delivery.
Class	Superfine.	Strict fine.	Fine.	Fine to superfine.	Fully good to fine.	Fine to superfine.	Fine.	Superfine.
Colour	Silvery.	Creamy-white.	White.	Creamy-white.	Dull-white.	White.	Dull-white.	White.
Staple Length	7/8 inch.	Barely 7/8 inch.	Full 3/4 inch.	5/8 inch.	Full 3/4 inch.	3/4 inch.	11/16 inch.	3/4 inch.
Staple Strength	Fair.	Fair.	Fair.	Fair.	Fair.	Moderate.	Fair.	Fair.
Regularity	Fair.	Irregular.	Irregular.	Irregular.	Fair.	Fairly regular.	Regular but soft.	Regular.
Value above or below contract rate ..	Rs. 7 on.	Rs. 8 on.	Rs. 4 on.	Rs. 3 off.	Rs. 3 on.	Rs. 2 on.	Rs. 5 off.	Rs. 5 on.
Basis	Rs. 253.	Rs. 143.	Rs. 219.	F. G. M. G. Branch No. 2, July/Aug. 1933 delivery. Rs. 207.	F. G. M. G. Branch Hedge Contract No. 2, July/August 1934 delivery. Rs. 226.	F. G. M. G. Branch Hedge Contract No. 2, July/August 1936 delivery. Rs. 228.	F. G. M. G. Branch Hedge Contract No. 2, April/May 1937 delivery. Rs. 233.	F. G. M. G. Branch Hedge Contract No. 2, July/August delivery. Rs. 162.
Date of Valuation	29-4-30.	25-8-31.	17-8-32.	26-7-33.	13-8-34.	8-8-36.	23-4-37.	27-6-38.
Remarks	This year poor character.	..	..	..	..	..	..	..

Table 14.—SPINNING TEST RESULTS FOR KADI-VIRAMGAM COTTON.

Sample No.	Cotton.	Season	Date of Spinning.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS										RELATIVE HUMIDITY (%).			
				Weight of Sample (lbs)				Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R P M.	Spindle Speed, R P M.	Draft.	Turns per Inch.	Tens		Bilalistic		Meters per yard	Turns per Inch.	Spinning Room.	Finishing Room.					
				Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†						Count-Strain (lb)	Strength (lbs)	Count-Strain (lb)	Count-Strain (lb)					Work of Ring (lb)	Count-Strain (lb)			
727	Kadi-Virangam.	1929-30	8-8-30	10	12.7	9.8	0.7	21.8	35	103	0.25	17.09	16.1	43.4	0.11	10.5	87.9	1.031	1	5.2	17.2	10	61	04	
727	Kadi-Virangam.	1929-30	8-8-30	20 C	..	..	..	90	176	..	0.25	20.27	16.1	53.2	1.112	10.3	90.2	1.711	2	3.5	10.2	70	01	03
1161	Kadi-Virangam	1930-31	1-6-31	10	14.1	10.2	0.6	23.3	40	184	0.25	17.53	20.2	60.6	1.231	20.1	105.1	2.150	1	3.6	17.1	87	71	77	
1161	Kadi-Virangam.	1930-31	1-6-31	24	..	..	..	88	156	8,600	0.76	10.73	21.6	10.2	1.679	21.1	91.0	2.176	1	3.5	19.4	83	72	81
1436	Kadi-Virangam.	1931-32	22-8-32	20 A	0	17.7	12.3	0.6	26.3	21	8,000	5.03	17.08	10.5	06.2	1.291	10.4	110.2	2.254	1	1.5	17.2	89	70	71
1436	Kadi-Virangam.	1931-32	23-8-32	24	..	..	..	47	154	8,456	5.05	10.73	21.5	50.3	1.142	21.8	91.2	2.218	2	2.8	19.6	89	70	70
1887	Kadi-Virangam.	1932-33	23-8-33	10 A	10	11.6	13.1	0.6	24.1	221	7,500	5.15	15.07	12.8	55.5	1.77	15.3	131.6	2.011	4	0.8	15.1	87	69	69
1887	Kadi-Virangam.	1932-33	23-8-33	20 A	..	..	..	218	103	8,500	5.55	17.03	10.9	35.3	0.89	10.9	91.1	1.879	4	1.0	17.3	87	67	69
2189	Kadi-Virangam.	1933-34	21-8-34	20 A	16	17.9	14.7	0.6	36.3	42	6,600	5.03	17.03	20.1	67.1	1.257	20.8	112.9	2.310	3	4.5	17.1	85	77	70
2189	Kadi-Virangam.	1933-34	22-8-31	24	..	..	..	36	176	6,500	5.33	10.73	21.7	51.1	1.282	21.1	94.6	2.302	1	4.6	19.8	81	77	79
2189	Kadi-Virangam.	1933-34	22-8-31	36	..	..	..	122	153	6,600	6.07	23.11	29.7	37.2	1.165	29.8	70.9	2.256	5	4.0	22.1	91	77	74
3329	Kadi-Virangam.	1935-36	21-8-36	14	10	10.3	12.2	0.4	21.6	22	8,406	5.10	14.03	13.6	85.3	1.186	11.1	150.2	2.100	1	1.8	11.5	86	71	72
3329	Kadi-Virangam.	1935-36	21-8-36	10 A	..	..	..	12	163	8,400	5.81	15.07	10.4	01.6	1.010	10.3	130.8	2.132	4	2.0	15.4	86	71	70
3329	Kadi-Virangam.	1935-36	21-8-36	20 B	..	..	..	63	106	16,100	5.51	10.25	26.2	59.0	1.162	20.2	101.8	2.117	5	1.5	18.6	95	75	76
3588	Kadi-Virangam.	1936-37	30-4-37	14	10	13.7	0.6	0.1	22.3	7	8,500	5.33	14.03	14.3	82.0	1.185	11.2	178.8	2.310	3	1.2	11.3	86	67	68
3588	Kadi-Virangam.	1936-37	30-4-37	16 A	..	..	..	36	191	8,400	0.13	15.07	16.7	02.0	1.050	10.5	132.0	2.178	4	1.5	13.1	89	66	66
3588	Kadi-Virangam.	1936-37	29-1-37	20 B	..	..	..	16	163	10,200	5.83	10.20	16.6	61.4	1.222	10.6	106.2	2.110	6	1.2	18.3	89	60	60
4136	Kadi-Virangam.	1937-38	11-7-38	14	10	11.6	16.1	0.3	21.6	36	6,000	5.33	14.03	14.3	104.7	1.107	14.2	200.2	2.023	3	0.6	14.3	87	76	78
4136	Kadi-Virangam.	1937-38	12-7-38	10 A	..	..	..	6	206	9,000	5.33	15.07	16.2	88.0	1.116	15.8	181.4	2.572	4	0.8	13.3	87	78	86
4136	Kadi-Virangam.	1937-38	12-7-38	10 B	..	..	..	6	203	6,700	5.11	16.97	16.9	09.0	1.382	15.6	181.0	2.630	4	6.8	16.3	86	77	80

* The ring frame front-roller used in the spinning of this yarn has a diameter of 1 inch. The diameter of ring—1 1/2 inch. † It is to be noted that the total loss is far a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

15.—WESTERNS COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
795	Westerns	Bellary	1929-30.
1127	Westerns	Adoni.	1930-31.
1370	Westerns	Adoni.	1931-32.
1889	Westerns	Raichur.	1932-33.
2356	Westerns	Adoni	1933-34.
2838	Westerns	Raichur.	1934-35.
3398	Westerns	Adoni.	1935-36.
3635	Westerns	Adoni.	1936-37.
4193	Westerns Jhavari	Raichur.	1937-38.

I.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 (inclusive) :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 (inclusive) :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. I.

1934-35 onwards :—As above, but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. I possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

		WESTERNS.							
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Colour	.. ..	Creamy-white.	Creamy-white.	Creamy-white.	Creamy-white.	Dull creamy ..	Creamy-white ; dullish.	Creamy-white to white.	Creamy-white.
Cleanliness	.. ..	Leafy ; rather badly stained.	Leafy ; slightly stained.	Much stained ; leafy.	Very leafy ..	Badly stained ; leafy.	Leafy ; slightly stained.	Leafy ..	Very leafy.
Feel	.. ..	Fairly good but softish.	Softish ..	Poorish ..	Good ..	Good ..	Good ..	Fairly good ..	Good, softish.
Ginning and neppiness	.. ..	Fairly well- ginned.	Well-ginned ..	Somewhat knotted.	Well-ginned ..	Somewhat knotted.	A trifle knotted	Well-ginned ..	Well-ginned.
Seeds	.. ..	..	9.7% ginned and unginned.	..	1% full clean.	..	..	..	..
Card Silver	.. ..	A trifle leafy ..	A little leafy ..	Almost clean ..	Fairly leafy ..	Fairly clean ..	Almost clean ..	Good ; leafy ..	Leafy.
Card Web	.. ..	Very slightly neppy.	Good ..	Good ..	Good even ..	A little neppy.	Even ; nep-free.	Good ; nep-free	Good ; quite free of nep.
Weight of 10 flat strips.	.. ..	17.9 grams.	11.3 grams.	18.4 grams.	23.7 grams.	22.5 grams.	14.7 grams.	17.8 grams.	17.5 grams.
Remarks	.. ..	..	..	..	..	..	..	..	..

(b) Yarn :—

		WESTERNS.							
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Cleanliness	.. ..	Fairly clean ..	Fairly clean ..	Clean ..	A little leafy ..	Almost clean ..	Almost clean ..	A little leafy ..	A little leafy.
Evenness	.. ..	Fairly even ..	Even ..	Fairly even ..	Fairly even ..	Even ..	Fairly even ..	Even ..	Even.
Neppiness	.. ..	Neppy ..	A little neppy	Fairly free of nep.	Somewhat neppy.	Fairly free of nep.	Somewhat neppy.	Almost free of nep.	Fairly free of nep.
Slubbiness	.. ..	..	..	..	Slightly slubby.	Slightly slubby.	..	..	..

3. Spinning Test Details and Results :—See Table 15 on page 45.

II.—REPORT OF THE STANDARDS COMMITTEE FOR WESTERNS.

WESTERNS.

		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Contract valued under	..	F. G. M. G. Broach No. 2.	F. G. M. G. Broach No. 2.	F. G. M. G. Broach No. 2, July/Aug. 1933 delivery.	F. G. M. G. Broach No. 2, July/Aug. 1934.	F. G. M. G. Broach No. 2, July/Aug. 1935 delivery.	F. G. M. G. Broach No. 2, April/May 1937 delivery.	F. G. M. G. Broach No. 2, April/May 1937 delivery.	F. G. M. G. Broach No. 2, July/Aug. 1938 delivery.
Class	..	Superfino ..	Superfino ..	Good to Fully good	Fully good ..	Fino ..	Fino ..	Superfino ..	Superfino.
Colour	..	Yellowish ..	Brownish-dull white.	Brownish ..	Brownish white ..	Brownish ..	Creamy brown ..	Brownish white ..	Brownish white.
Staple Length	..	Full 3/4 inch ..	3/4 inch ..	5/8 inch ..	3/4 inch ..	13/16 inch ..	11/16 inch ..	13/16 inch ..	11/16 inch.
Staple Strength	..	Fairly good ..	Weak ..	Fair ..	Fair ..	Moderate ..	Poor ..	Good ..	Fair.
Regularity	..	Irregular ..	Irregular ..	Irregular ..	Irregular ..	Fair ..	Irregular ..	Fairly regular ..	Fair.
Valued above or below Contract rate	..	Rs. 10 on ..	Rs. 8 on ..	Rs. 5 off ..	Par ..	Rs. 30 on ..	Rs. 10 off ..	Rs. 30 on ..	Rs. 15 on.
Basis	..	Rs. 177 ..	Rs. 162 ..	F. G. M. G. Broach No. 2, July/Aug. 1933 delivery Rs. 207.	F. G. M. G. Broach No. 2, July/Aug. 1934 delivery, Rs. 208.	F. G. M. G. Broach No. 2, July/Aug. 1935 delivery, Rs. 231.	F. G. M. G. Broach No. 2, April/May 1937 delivery, Rs. 210.	F. G. M. G. Broach No. 2, April/May 1937 delivery, Rs. 231.	F. G. M. G. Broach No. 2, July/Aug. 1938 delivery, Rs. 144.
Date of Valuation	..	14-7-31 ..	13-6-32 ..	20-7-33 ..	10-6-34 ..	20-8-35 ..	5-10-36 ..	20-3-37 ..	9-8-38.
Remarks	..	Probably mixed with Mungari.	..	..	..	..	..	..	..

Table 15.—SPINNING TEST RESULTS FOR WESTERNS.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample, lbs.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.										TEMPERATURE (°F.)	RELATIVE HUMIDITY (%).	
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss. †	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per inch.	L.T.A.			BALLASTING.			Spiraling Room.	Spiraling Room.				
															Counts Actual.	Strength lbs.	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lb.)	Count-Work Product.						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27

795	Westerns..	1929-30	24-7-30	20A	10	13.9	11.9	6.7	24.7	08	170	..	5.32	17.63	16.0	46.4	008	26.6	64.2	1884	86	72	
795	Westerns..	1929-30	24-7-30	20B		..	..	..	..	60	102	..	5.32	20.23	10.3	60.7	1287	16.3	107.8	2681	97	75
1127	Westerns..	1930-31	24-7-31	20A	10	10.8	10.8	0.4	20.7	30	196	9450	5.42	17.98	20.1	60.6	1399	26.6	113.0	2312	88	82	
1127	Westerns..	1930-31	23-7-31	24	..	..	..	..	..	40	150	8260	6.45	19.73	23.7	52.0	1232	24.3	92.0	2286	87	86
1370	Westerns..	1931-32	23-0-32	20A	10	11.2	0.0	0.5	16.7	30	194	9506	5.57	17.98	16.4	77.7	1567	19.7	120.4	2406	80	78	
1376	Westerns..	1931-32	23-0-32	24	..	..	..	..	..	8	176	6506	6.68	19.78	23.1	59.0	1331	23.2	101.2	2349	86	78
1886	Westerns..	1932-33	1-6-33	16	10	15.0	16.8	0.4	24.5	73	181	8000	5.33	15.97	15.0	74.4	1183	16.1	132.0	2125	86	07	
1886	Westerns..	1932-33	31-8-33	20A	..	..	..	..	..	151	178	8800	5.55	17.98	10.9	65.4	1162	26.3	108.0	2061	87	67
2350	Westerns..	1933-34	29-0-34	16	10	14.1	13.0	0.5	25.6	42	192	8250	5.03	15.07	10.0	71.3	1141	15.8	133.0	2111	86	81	
2350	Westerns..	1933-34	28-0-34	20A	..	..	..	..	..	109	175	8560	5.08	17.03	19.8	55.3	1095	16.6	102.6	2012	80	85
2356	Westerns..	1933-34	28-0-34	20B	..	..	..	..	..	114	188	9800	5.93	19.29	20.0	60.2	1204	19.7	107.0	2103	85	86
2833	Westerns..	1934-35	31-8-35	10	10	10.8	12.7	0.2	22.3	18	198	8900	5.30	15.97	15.6	107.2	1704	16.0	189.0	2023	85	74	
2833	Westerns..	1934-35	30-8-35	20A	..	..	..	..	..	20	176	8550	5.63	17.08	20.1	75.2	1312	26.1	126.2	2597	86	74
2833	Westerns..	1934-35	31-8-35	20B	..	..	..	..	..	10	185	9600	6.07	16.29	20.5	70.2	1024	20.6	127.6	2029	85	72
3398	Westerns..	1935-36	14-10-36	16	10	12.5	10.5	0.2	21.8	0	194	8900	5.71	15.97	16.5	86.6	1330	10.5	136.2	2247	89	61	
3398	Westerns..	1935-36	11-10-36	20A	..	..	..	..	..	6	191	9000	6.33	17.08	19.7	66.0	1300	10.8	111.4	2200	88	64
3398	Westerns..	1935-36	14-10-36	20B	..	..	..	..	..	5	197	10350	6.95	16.29	26.3	72.2	1460	29.6	166.2	2256	87	03
3695	Westerns..	1936-37	23-5-37	16	16	12.1	10.8	0.7	21.9	6	200	8700	5.94	15.97	15.0	95.2	1485	10.1	151.4	2198	96	06	
3695	Westerns..	1936-37	26-5-37	20A	..	..	..	..	..	10	107	9500	5.93	17.08	26.7	59.3	1223	26.8	167.8	2242	90	06
3695	Westerns..	1936-37	29-5-37	20B	..	..	..	..	..	16	100	10200	6.03	19.29	26.6	69.6	1421	20.6	111.6	2300	80	06
4103	Westerns..	1937-38	20-8-38	16	10	12.1	11.1	0.4	22.2	12	203	8000	6.39	15.97	16.1	94.5	1521	16.1	162.6	2068	80	71	
4103	Westerns..	1937-38	18-8-38	20A	..	..	..	..	..	10	195	9006	5.81	17.98	26.3	68.9	1390	26.1	117.8	2368	86	72
4103	Westerns..	1937-38	18-8-38	20B	36	198	16306	5.81	16.29	19.9	78.6	1504	26.0	121.0	2480	87	73	76

* Diameter of ring frame front roller—1". Diameter of rings—1 1/2".
† It is to be noted that the total loss is for a small sample weighing 16 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

16.—FARM WESTERNS COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
758	Farm Westerns	Guntakal	1929-30
1128	"	Adoni	1930-31
1371	"	Bellary	1931-32
1890	"	Adoni	1932-33
2297	"	Bellary	1933-34
2772	"	Adoni	1934-35
3323	"	Raichur	1935-36
3654	"	Guntakal	1936-37

I.—SPINNING TESTS.

1. *Treatment* :—

- (a) *Blow-room*.—Upto 1933-34 :—Poreupine, Crighton (twice), Hopper, Scutcher (3 times).
1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).
- (b) *Card-room*.—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.
1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. *Spinning Master's Report* :—(a) *Cotton* :—

	FARM WESTERNS.							
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Colour ..	Creamy	Creamy-white	Creamy-white	Creamy-white	White to creamy-white; fairly bright.	Creamy-white; fairly bright	Creamy-white	Creamy-white.
Cleanliness ..	Very leafy	Leafy ..	Leafy; a good deal stained	Stained; leafy.	Leafy ..	Leafy ..	Leafy (fine leaf)	Leafy.
Feel ..	..	Good ..	Good softish ..	Good ..	Good ..	Good ..	Good ..	Good.
Ginning and neppiness	Fairly well-ginned.	Well-ginned ..	Well-ginned ..	Somewhat knotted.	Well-ginned ..	Well-ginned ..	A little knotted.	..
Seeds ..	1.56% ginned and ungin-	..	1.4% ginned and ungin-	..	2.2% ungin-	Contains many full	few.	Ginned 0.86%.
Card sliver ..	Fairly clean ..	Slightly leafy.	A little leafy ..	Clean ..	Fairly clean ..	Leafy ..	Almost clean ..	A little leafy.
Card web ..	..	Even and almost nepp-free.	Good ..	Good ..	Good even ..	Full ..	Good ..	Good.
Weight of 10 flat strips.	16.4 grams	13.7 grams	16.0 grams	18.6 grams	16.3 grams	25.1 grams	15.1 grams	19.2 grams.
Remarks ..	Much leaf shed over beam and rings.	Fully pressed.	..	..	..	..	..	..

(b) *Yarn* :—

	FARM WESTERNS.							
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Cleanliness ..	Fairly leafy	A little leafy	Fairly clean	Clean ..	Almost clean	Somewhat leafy.	Almost clean	Leafy.
Evenness ..	Even ..	Fairly uneven	Even ..	Fairly even	Even ..	Fairly even	Even ..	Even.
Neppiness ..	A little neppy	Neppy	A little neppy	Almost free of nepp.	Practically free of nepp.	Somewhat neppy.	Slightly neppy.	Practically nepp-free.
Slubbiness ..	..	..	..	..	..	..	..	..

3. *Spinning Test Details and Results* :—See Table 16 on page 48.

Table 16.—SPINNING TEST RESULTS FOR FARM WESTERNS COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
Sample No.	Cotton.	Season.	Date of Spinning.	Counts per Minute.	WASTE PERCENTAGES				RING FRAME PARTICULARS*				YARN TEST RESULTS				LABORATORY RESULTS				RELATIVE HUMIDITY (%)						
					Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss †	Yarn Breakage per 100 spindles per hour.	Front Roller Speed R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per Inch.	Tensile Strength (lbs.)	Tensile Strength (lb.-in.)	Count Actual.	Mark (lb.-in.)	Weight of Product (lb.)	Tensile Strength (lb.-in.)	Tensile Strength (lb.-in.)		Tensile Strength (lb.-in.)					
758	Farm Westerns	1920-30	11-0-30	20	13.0	11.1	0.0	24.1	5	106	..	4.00	17.08	10.6	84.9	1012	10.7	121.8	2190	3	2.5	17.1	20	68	70	68	70
758	Farm Westerns	1920-30	11-0-30	21	..	..	..	..	41	170	..	5.05	19.77	23.5	81.4	1432	27.0	82.0	2067	4	1.0	10.0	20	68	61	68	61
1128	Farm Westerns	1930-31	24-7-31	20	10.2	11.1	0.3	20.5	20	196	9120	5.26	17.94	20.6	61.0	1318	20.6	104.2	2261	1	7.5	17.3	25	75	80	75	80
1128	Farm Westerns	1930-31	31-7-31	24	..	..	..	..	27	150	8400	6.10	19.77	23.6	50.5	1373	21.6	68.1	2152	0	6.5	17.3	26	76	85	76	85
1371	Farm Westerns	1931-32	24-6-32	20	12.3	8.7	0.5	20.4	10	101	6300	5.41	17.08	10.0	86.9	1703	20.0	133.2	2761	3	5.0	17.4	26	69	77	69	77
1371	Farm Westerns	1931-32	25-6-32	24	..	..	..	..	21	175	9200	6.41	19.77	25.0	70.7	1026	21.1	111.0	2682	4	5.0	10.3	26	72	81	72	81
1990	Farm Westerns	1931-33	31-8-33	20	13.8	10.5	0.5	23.2	145	178	8900	5.69	17.98	10.8	60.6	1200	20.0	111.2	2221	1	1.5	17.2	27	69	70	69	70
1990	Farm Westerns	1932-33	31-8-33	24	..	..	..	..	160	162	8000	5.05	19.73	23.4	45.3	1075	21.0	92.0	2204	4	1.5	10.0	24	70	63	70	63
2297	Farm Westerns	1933-34	22-5-34	20	12.2	8.3	0.3	20.6	10	108	6750	5.08	17.08	20.2	83.2	1620	20.1	111.2	2037	1	1.2	17.3	20	68	68	68	68
2297	Farm Westerns	1935-34	22-5-34	24	..	..	..	..	0	180	6900	5.33	19.73	27.5	68.8	1017	21.2	106.2	2570	4	1.5	10.1	20	65	70	65	70
2297	Farm Westerns	1937-34	22-5-34	30	..	..	..	..	20	130	6500	0.02	21.80	20.1	40.3	1135	20.3	81.8	2500	5	1.5	21.1	25	68	70	68	70
2772	Farm Westerns	1934-35	18-7-35	20	0.4	13.1	0.4	21.0	10	108	9750	0.10	17.08	10.0	80.0	1711	20.0	145.0	2700	3	2.2	17.0	20	72	73	72	73
2772	Farm Westerns	1934-35	10-7-35	24	..	..	..	..	27	180	6000	5.11	10.73	21.8	65.0	1001	27.4	111.0	2038	4	2.5	18.5	25	78	80	78	80
2772	Farm Westerns	1934-35	10-7-35	30	..	..	..	..	53	139	9700	0.86	21.46	28.7	52.2	1109	24.5	89.0	2551	5	1.9	21.0	25	77	41	77	41
3223	Farm Westerns	1935-36	20-8-36	10	11.0	0.7	0.3	20.4	18	162	8700	5.05	17.07	15.0	69.8	1403	10.1	155.2	2199	1	2.0	15.2	25	71	75	71	75
3221	Farm Westerns	1935-36	10-8-36	20A	..	..	..	..	21	186	6350	6.07	17.08	10.9	64.2	1317	29.4	112.0	2385	1	2.2	17.3	26	72	74	72	74
3223	Farm Westerns	1935-36	10-8-36	20B	..	..	..	..	5	190	10000	6.10	19.50	20.0	73.9	1473	20.2	113.0	2203	1	1.2	18.7	26	71	71	71	71
3054	Farm Westerns	1936-37	11-6-37	10	12.5	10.0	0.3	21.5	6	193	8700	5.50	15.07	15.0	113.1	1761	15.4	189.2	2314	3	0.8	15.5	20	70	60	70	60
3054	Farm Westerns	1936-37	12-6-37	20	..	..	..	..	10	192	6600	1.71	17.08	19.3	84.5	1709	19.0	138.0	2522	3	0.5	17.5	21	85	72	85	72
3054	Farm Westerns	1936-37	12-6-37	24	..	..	..	..	11	178	9700	5.03	19.73	23.4	63.2	1520	21.1	106.8	2197	1	0.9	19.2	20	69	69	69	69

* Diameter of ring frame front roller—1". Diameter of flyer—11".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; 1/2 lb. bulk sample spun under mill conditions it would be less than shown here.

17.—KUMPTA COTTON.

Those samples have been very kindly supplied by the East India Cotton Association after inspection and approval by their Standards Committee, in accordance with an agreement made with the Association to supply to the Technological Laboratory, for samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
1129	Kumpta	Hubli	1930-31
1369	"	"	1931-32
1891	"	"	1932-33
2298	"	Gadag.	1933-34
2872	"	"	1934-35
3399	"	Hubli.	1935-36
3698	"	"	1936-37
4258	"	"	1937-38

I.—SPINNING TESTS.

Treatment :—

Blow-room.—Upto 1933-34 (inclusive) :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

Card-room.—Upto 1933-34 (inclusive) :—Card, Drawing (2 heads), Slubber, Inter-Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above, but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

Spinning Master's Report :—

Cotton :—

KUMPTA.								
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38
.. ..	Dullish creamy	Dullish creamy-white.	Dullish creamy-white.	Creamy-white.	Creamy-white.	White to creamy-white; dullish.	Creamy-white.	White to creamy white.
s ..	Leafy ..	Leafy ..	Very leafy; stained.	Leafy ..	Very leafy ..	Leafy; slightly stained.	Leafy ..	Very leafy.
and neppl-	Moderately good ..	Well-ginned ..	Good ..	Good smooth ..	Good ..	Good ..	Good bodied ..	Good.
.. ..	Too much cut and crushed besides 1.1% ginned and unginned.	A few ginned and unginned	..	1.56% unginned and partly ginned.	..	..	..	Fairly well-ginned.
.. ..	Fairly clean ..	Clean ..	Almost clean ..	Fairly leafy ..	Clean ..	Almost clean ..	A little leafy ..	Leafy.
.. ..	Even and practically free of nep.	Good ..	Even and nep-free.	Good ..	Good ..	Even; nep-free	Good; fairly free of neps.	Almost free of neps.
of 10 lot	19.3 grams	14.3 grams	15.2 grams	16.2 grams	16.3 grams	14.3 grams	23.6 grams	15.8 grams.
.. ..	..	..	..	Fairly well-watered.	..	..	..	..

Yarn :—

KUMPTA.								
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
.. ..	Fairly clean ..	Almost clean ..	Clean ..	Fairly clean ..	Leafy ..	Almost clean ..	A little leafy ..	Fairly clean.
.. ..	Fairly even ..	Even ..	Fairly even ..	Fairly even in the two lower counts.	Even ..	Even ..	Fairly even ..	Even.
.. ..	Slightly neppy.	A trifle neppy.	Free of nep	A little neppy.	Almost free of nep.	Almost free of nep.	Fairly free of nep.	Fairly free of nep.
.. ..	..	..	..	A little slabby.	..	..	..	..

*Spinning Test Details and Results :—*See Table 17 on page 51.

II. REPORT OF THE STANDARDS COMMITTEE FOR KUMPTA COTTON.

Kumta,

	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Contract valued under	F. G. M. G. Branch No. 2.	F. G. M. G. Branch No. 2.	F. G. M. G. Branch No. 2, July/Aug. 1933 delivery.	F. G. M. G. Branch No. 2, April/May 1934 delivery.	F. G. M. G. Branch No. 2, April/May 1935 delivery.	F. G. M. G. Branch No. 2, April/May 1937 delivery.	F. G. M. G. Branch No. 2, July/Aug. 1938 delivery.	F. G. M. G. Branch No. 2, April/May 1939 delivery.
Class
Colour
Staple Length
Staple Strength
Regularity
Value above or below contract rate
Basic
Date of Valuation
Remarks

Table 17.—SPINNING TEST RESULTS FOR KUMPTA COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.										TEMPERATURE HUMIDITY (°F.)	PERCENTAGE HUMIDITY (%)			
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed R. P. M.	Spindle Speed R. P. M.	Draft.	Turns per inch.	Counts Actual.	Strength (lbs.)	I.F.A.		BALLISTIC.									
																	Count-Strain Product.	Count-Strain Product.	Counts Actual.	Work of Rupture (inch-lb.)	Count-Work Product.	Evenness Class.	Keps per yard.			Turns per inch. Actual.	Spinning Room.	Testing Room.
1126	Kumpla ..	1030-31	27-7-31	21	10	14.1	10.3	0.5	23.5	24	180	6000	5.08	10.73	24.0	63.7	1577	23.7	103.0	2441	4	1.7	18.0	85	83			
1120	Kumpla ..	1030-31	27-7-31	30 B		..	..	..	..	42	153	9700	7.06	23.11	23.0	47.7	1412	26.1	82.4	2363	5	3.0	22.2	86	85
1366	Kumpla ..	1031-32	30-0-32	24	10	15.0	0.2	0.5	23.2	42	180	6650	6.77	10.73	22.7	67.2	1525	25.4	67.0	2381	3	1.5	10.1	90	73			
1369	Kumpla ..	1031-32	22-0-32	30 D		..	..	..	..	23	153	6550	7.11	23.26	26.0	40.3	1450	26.5	81.2	2305	4	2.0	22.0	87	77
1891	Kumpla ..	1032-33	30-8-33	21	10	16.0	8.0	0.5	23.5	150	178	6600	6.63	10.73	23.5	58.5	1375	24.1	64.0	2265	4	0.5	18.8	87	70			
1891	Kumpla ..	1032-33	31-8-33	30 A		..	..	..	..	106	150	6000	0.84	21.86	23.0	42.3	1210	20.1	76.4	2223	5	1.0	20.6	80	73
2293	Kumpla ..	1032-34	21-5-34	20	10	14.7	6.7	0.0	23.4	21	168	6650	5.81	17.63	19.8	77.1	1527	20.4	111.4	2273	4	1.2	17.1	88	68			
2293	Kumpla ..	1032-31	23-5-31	24		..	..	..	..	32	180	6550	6.32	10.73	23.4	68.4	1184	21.1	67.2	2343	5	1.8	16.0	80	70
2293	Kumpla ..	1032-34	23-5-31	30 A		..	..	..	..	73	164	6100	0.02	21.80	20.8	41.2	1223	30.0	77.2	2302	0	1.6	20.0	89	70
2872	Kumpla ..	1031-35	25-0-35	20	10	10.0	13.8	0.4	23.2	20	107	6700	6.65	17.93	20.4	80.2	1320	20.2	127.2	2560	3	1.2	17.1	86	68			
2872	Kumpla ..	1031-35	21-0-35	24		..	..	..	..	18	170	6650	5.23	19.73	23.4	71.9	1753	23.3	106.0	2340	3	1.2	10.0	80	69
3300	Kumpla ..	1035-30	10-10-30	20	10	0.4	10.7	0.4	10.4	21	194	9700	0.10	17.63	20.4	85.3	1740	20.1	116.0	2332	3	1.2	17.2	80	71			
3300	Kumpla ..	1035-30	15-10-30	24		..	..	..	..	10	178	9700	5.55	19.73	23.4	72.3	1692	23.1	105.2	2430	4	1.5	10.1	87	60
3300	Kumpla ..	1035-30	15-10-30	30 A		..	..	..	..	17	147	6600	9.70	21.86	26.4	62.4	1541	28.7	86.0	2408	4	1.5	21.1	80	61
3608	Kumpla ..	1036-37	13-7-37	20	10	12.5	13.8	0.5	25.0	16	164	9600	0.00	17.93	19.0	80.4	1603	16.7	131.0	2010	3	1.2	17.2	83	80			
3608	Kumpla ..	1036-37	13-7-37	24		..	..	..	..	32	174	9500	5.35	19.73	24.3	62.1	1500	21.1	104.8	2320	4	1.5	18.8	82	83
3608	Kumpla ..	1036-37	12-6-37	30 A		..	..	..	..	30	158	6600	0.62	21.86	30.3	45.9	1391	30.0	94.8	2505	5	1.5	20.9	83	81
4258	Kumpla ..	1037-38	28-0-38	20	10	12.2	10.2	0.0	21.9	26	210	10300	0.05	17.63	19.9	60.3	1707	16.9	136.0	2693	3	0.8	17.3	88	70			
4258	Kumpla ..	1037-38	28-0-38	24		..	..	..	..	14	180	9700	5.43	19.73	23.7	71.5	1695	23.2	117.0	2714	3	1.0	19.2	80	68
4258	Kumpla ..	1037-38	29-0-38	30 A		..	..	..	..	50	105	9860	0.01	21.80	29.8	48.2	1486	30.2	80.0	2615	5	1.0	21.1	89	69

* Diameter of ring frame front roller— $\frac{1}{2}$ ". Diameter of rings— $\frac{1}{16}$ ". † It is to be noted that the total loss is for a small sample weighing 10 lbs., for bulk sample spun under mill conditions it would be less than shown here.

18.—UPLAND COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by the Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.	Sample No.	Cotton	Place.	Season.
796	Upland ..	Gadag ..	1929-30	2475	Upland ..	Gadag ..	1933-34
1158	" ..	Hubli ..	1930-31	2829	" ..	" ..	1934-35
1396	" ..	Gadag ..	1931-32	3325	" ..	" ..	1935-36
1884	" ..	" ..	1932-33	3655	" ..	" ..	1936-37

1. SPINNING TESTS.

1. Treatment :—

(a) *Blow-room.*—Upto 1933-34 :—Porepine, (Brighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, (Brighton (once) Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room.*—Upto 1933-34 :—Card, Drawing (2 heads), Shubber, Inter, Rover and span from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	PLAINS							
	1929-31	1931-31	1931-32	1932-33	1933-34	1934-35	1935-36	1936-37
Colour ..	Cr. sm. white, bright	Cr. sm. white, bright	Cr. sm. white, bright	Cr. sm. white, bright	Cr. sm. white, bright	White in cream, white	White in cream, white	White in cream, white
Cleanliness ..	Leaky	Leaky; slightly stained	Leaky; slightly stained	Leaky	Very leaky	Fairly clean	Slightly stained (slightly leaky)	Fairly clean
Feel ..	Good	Good	Good with softness	Soft	Soft	Soft; powdery	Good	Good but not soft
Gleaning and nepping ..	A little matted and knotted	Well planned except for slight knottiness	Well planned	Somewhat knotted	Fairly well planned	Well planned	A little knotted	Well planned
Seeds ..	A fair amount of undeveloped seed, 0.5% full clean	0.5% undeveloped and not clean	0.5% undeveloped	..	..	Some seeds	..	..
Card Silver ..	..	Almost clean	Clean	Clean	Leaky	Clean; soft	Clean	Clean
Card Web ..	A little cloudy and neppy	Practically free of nep	Good	Good	Somewhat cloudy	Slightly neppy	Good	Good; neppy free
Weight of 10 fls. slips ..	20.8 grams	21.2 grams	22.7 grams	23.7 grams	26.4 grams	24.1 grams	15.6 grams	17.2 grams
Remarks ..	..	..	..	..	..	..	..	..

(b) Yarn :—

	UPLAND							
	1929-30	1930-31	1931-32	1932-33	1933-34	1934-35	1935-36	1936-37
Cleanliness ..	Fairly leaky	Almost clean	Almost clean	Somewhat leaky	Leaky	Clean	Almost clean	Slightly leaky
Evenness ..	Very neppy	Fairly even	Fairly even	Fairly even	Fairly even	Fairly even	Even	Even
Nepiness ..	Fairly even	A little neppy	A little neppy	A little neppy	Somewhat neppy	A little neppy	Practically free of nep	Practically free of nep
Stubbiness ..	..	..	..	A little shabby	..	Somewhat shabby	..	..

3. Spinning Test Details and Results :—See Table 18 on page 54.

II.—REPORT OF THE STANDARDS COMMITTEE FOR UPLAND COTTON.

		UPLAND.									
		1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.		
Contract valued under	.. ..	F. G. M. G. Branch.	F. G. M. G. Branch. No. 2.	F. G. M. G. Branch. No. 2.	F. G. M. G. Branch. No. 2, Aug-July. 1933 delivery.	F. G. M. G. Branch. Hedge Contract No. 2, April-May 1935 delivery.	F. G. M. G. Branch. Hedge Contract No. 2, July-Aug. 1935 delivery.	F. G. M. G. Branch. Hedge Contract No. 2, July-Aug. 1936 delivery.	F. G. M. G. Branch. Hedge Contract No. 2, July-Aug. 1937 delivery.		
Glass	.. ..	Strict fine ..	.. Fine ..	.. Fine ..	.. Fully good to fine.	Fino ..	Superfino ..	Superfino ..	Fino.		
Colour	.. ..	Bluish white	.. White but slightly creamy.	.. Bluish white	.. Whittish ..	Whitish ..	Whitish ..	White ..	White.		
Staple Length	.. ..	7/8 inch ..	.. 29/32 inch	.. Full 3/4 inch	.. 11/16 inch	13/16 inch	3/4 inch	11/16 inch	11/16 inch.		
Staple Strength	.. ..	Good ..	.. Good ..	.. Fair ..	.. Fair ..	Good ..	Fair ..	Fair ..	Weak.		
Regularity	.. ..	Regular ..	.. Regular ..	.. Regular ..	.. Irregular ..	Irregular ..	Fair ..	Somewhat irregular	Somewhat irregular.		
Value above or below contract rate	.. ..	Rs. 50 on ..	.. Rs. 35 on ..	.. Rs. 20 on ..	.. Rs. 5 on ..	Rs. 5 off ..	Rs. 15 on ..	Rs. 7 off ..	Rs. 5 on.		
Basis	.. ..	F. G. M. G. Branch	.. Rs. 162	.. Rs. 160	.. F. G. M. G. Branch No. 2, July-Aug. 1933 delivery. Rs. 207.	F. G. M. G. Branch. Hedge Contract No. 2, April-May 1935 delivery. Rs. 221.	F. G. M. G. Branch. Hedge Contract No. 2, July-Aug. 1936 delivery. Rs. 228.	F. G. M. G. Branch. Hedge Contract No. 2, July-Aug. 1937 delivery. Rs. 239.	F. G. M. G. Branch. Hedge Contract No. 2, July-Aug. 1937 delivery.		
Date of Valuation	.. ..	10-7-30	.. 10-8-31	.. 27-6-32	.. 20-7-33	.. 20-8-34	.. 13-8-35	.. 8-8-36	.. 3-6-37.		
Remarks	.. ..	..	..	..	..	..	..	..	..

Table 18.—SPINNING TEST RESULTS FOR UPLAND COTTON.

1	2	3	4	WATER PERCENTAGES.					RING FRAME PARTICULARS.*				YARN TEST RESULTS.										21	25	29	37
				Weight of Sample (lbs.)	Conds. Control	Now Room Low.	Card Room Low.	Spinning Low.	Total Loss†	Yarn Packages per Hour.	Ring Spindle Speed, R. P. M.	Spindle Revs. per M.	Draft.	Turns per Inch.	Conds. Actual	Strength (lbs.)	Count-Strong	Counts Actual	Work of Machine (lb.)	Cond. Work Product.	Yarns per Card.	Turns per Inch.					Spinning Room.	Testing Room.
704	Upland	1929-30	22-7-30	20	10	10.3	13.8	0.6	23.1	50	164	..	..	17.98	10.7	137.8	10.0	128.4	2318	3	0.5	17.1	80	73	70	
790	Upland	1929-30	24-7-30	24	..	..	..	..	..	24	180	..	0.0	10.73	23.0	89.2	1391	21.0	91.0	2184	4	11.7	18.8	80	76	72
1138	Upland	1930-31	17-8-31	20	10	9.5	12.3	0.3	20.0	11	190	0100	5.0	17.08	20.0	74.1	1482	20.1	128.2	2138	4	2.0	17.1	81	73	81
1158	Upland	1930-31	16-8-31	24	..	..	..	..	..	18	160	8000	0.1	10.73	21.1	37.5	1386	21.5	98.4	2411	5	2.7	18.0	85	77	77
1200	Upland	1931-32	18-7-32	20	10	10.0	13.6	0.7	21.7	114	184	0200	5.0	17.08	10.7	62.0	1221	19.0	118.2	2317	4	2.0	17.1	96	78	70
1300	Upland	1931-32	18-7-32	24	..	..	..	..	..	102	157	8500	5.0	10.73	24.0	41.0	1016	21.0	91.0	2233	5	2.5	10.0	86	70	70
1884	Upland	1932-33	10-8-33	20	10	14.4	13.8	0.6	20.6	102	185	9000	5.0	17.08	10.8	60.0	1206	10.0	109.1	2177	4	3.0	17.5	87	70	63
1884	Upland	1932-33	22-8-33	24	..	..	..	..	..	200	156	8500	0.0	16.74	21.0	45.1	1085	21.5	92.0	2208	5	3.5	10.2	80	60	70
2473	Upland	1933-34	5-0-34	20	10	13.1	14.7	0.4	20.2	31	187	9200	0.1	17.94	20.2	72.0	1478	20.4	117.2	2321	4	3.8	17.0	84	77	78
2473	Upland	1933-34	6-0-34	21	..	..	..	..	..	53	173	9250	0.1	16.73	21.3	81.2	1317	24.3	97.0	2327	5	4.0	10.0	83	80	72
2880	Upland	1934-35	27-8-35	20	10	13.1	12.0	0.0	21.8	37	170	9000	5.0	17.08	20.2	61.2	1297	20.5	120.2	2040	4	1.8	17.5	80	71	73
2880	Upland	1934-35	20-8-35	24	..	..	..	..	..	09	104	8550	0.38	16.73	20.8	54.3	1292	23.5	111.8	2027	5	2.0	18.1	85	70	78
3725	Upland	1935-36	20-8-36	20	10	6.8	10.4	0.3	19.4	21	190	9500	5.0	17.08	10.0	80.1	1570	20.0	137.8	2750	4	1.2	17.3	80	71	78
3225	Upland	1935-36	21-8-36	24	..	..	..	..	..	23	172	9550	0.10	16.73	23.1	62.8	1151	23.1	114.9	2033	4	1.0	10.0	85	73	70
3655	Upland	1936-37	17-0-37	10	9	8.0	10.0	0.4	18.0	18	210	9300	1.00	15.07	15.5	109.2	1093	15.5	211.4	3277	3	1.3	15.5	09	72	70
3655	Upland	1936-37	14-6-37	20	..	..	..	..	..	31	101	9500	6.83	17.08	10.4	71.8	1293	10.7	150.0	2501	3	0.8	17.0	90	77	77
3055	Upland	1936-37	14-6-37	24	..	..	..	..	..	41	172	9500	5.01	10.73	23.7	52.8	1251	23.9	109.6	2170	4	0.5	18.9	90	90	75

Diameter of ring frame front roller—4". Diameter of rings—11".

† It is to be noted that the total loss is for a small sample weighing 10 lbs; for bulk sample spun under mild conditions it would be less than shown here.

19.—BIJAPUR COTTON.

These samples have been very kindly supplied by the East India Cotton Association, inspection and approval by their Standards Committee, in accordance with an agreement made with the Association to supply to the Technological Laboratory, for samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
1156	Bijapur.	Bijapur.	1930-31.
1397	"	"	1931-32.
1892	"	"	1932-33.
2474	"	"	1933-34.
2842	"	"	1934-35.
3324	"	"	1935-36.
3652	"	"	1936-37.
4256	"	"	1937-38.

I.—SPINNING TESTS.

Treatment :—

Blow-room.—Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once) Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

Card-room.—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards : As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

Spinning Master's Report :—

Cotton :—

		BIJAPUR.							
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
..	.. Creamy-white..	Dull creamy ..	Dullish creamy-white.	Creamy-white..	Creamy-white..	Creamy ..	Creamy ..	Creamy ..	Creamy-white to creamy.
..	.. Very leafy ..	Leafy; somewhat stained.	..	Very leafy ..	Very leafy ..	Leafy ..	.. Leafy ..	.. Leafy ..	.. Very leafy.
..	.. Full-bodied ..	Poorish soft ..	Good ..	Good ..	Poorish ..	Fairly good ..	Good ..	.. Fair.	..
d nepplacess	..	A good deal knotted.	S o m e w h a t knotted.	Well-ginned ..	Well-ginned ..	A little knotted.	Well-ginned ..	Well-ginned ..	Well-ginned.
..	.. 2% ginned and unginned.	0.75% ginned and unginned.	0.6% ginned and unginned.	..	..	Some seeds ..	0.35 per cent ..	.. A few ginned.	..
..	.. Fairly clean ..	A little leafy ..	Clean ..	Fairly leafy ..	Little leafy ..	Almost clean ..	Leafy ..	.. A little leafy.	..
..	.. Even and free of nep.	Fairly good ..	Even and nep-free.	Good ..	Good ..	Good ..	Good ..	Good ..	Good; quillo free of neps.
en flat strips	10.5 grams ..	22.1 grams ..	15.0 grams ..	21.9 grams ..	22.3 grams ..	15.4 grams ..	10.1 grams ..	.. 10.4 grams.	..
..	.. Fully pressed ..	..	..	..	..	..	..	..	..

Yarn :—

		BIJAPUR.							
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
..	.. Clean ..	S o m e w h a t leafy.	Clean ..	A little leafy ..	Fairly clean ..	Almost clean ..	Leafy ..	.. Fairly clean.	..
..	.. S o m e w h a t uneven.	Even in lower counts only.	Fairly even ..	Fairly even ..	Even ..	Very even ..	Even ..	.. Even.	..
..	.. Fairly free of nep.	Fairly free of nep.	Free of nep ..	Fairly free of nep.	Free of nep ..	Practically free of nep.	Slightly neppy.	Free of nep.	..
..

Spinning Test Details and Results :— See Table 19 on page 57.

II.—REPORT OF THE STANDARDS COMMITTEE FOR BIJAPUR COTTON.

BIJAPUR.										
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.		
Contract valued under	F. G. M. G. Branch No. 2.	F. G. M. G. Branch No. 2.	F. G. M. G. Branch No. 2, July/Aug. 1933 delivery.	F. G. M. G. Branch H. C. No. 2, April/ May 1935 delivery	F. G. M. G. Branch H. C. No. 2, July/ August 1935 deli- very.	F. G. M. G. Branch H. C. No. 2, July/ August 1936 deli- very.	F. G. M. G. Branch H. C. No. 2, July/ August 1937 deli- very.	F. G. M. G. Branch H. C. No. 2, April/ May 1939 delivery.		
Class	Fine	Ful good to fine	Good	Strick fine	Fine	Fully good to fine	Fine	Fully good.		
Colour	Creamy	Brownish	Reddish brown	Brownish	Brownish white	Brownish	Creamy brownish	Brownish grey.		
Staple Length	13/16 inch	2/1 inch	5/8 inch	3/4 inch	11/16 inch	3/4 inch	11/16 inch	11/16 inch.		
Staple Strength	Fair	Fair	Fair	Fair	Poor	Medio- crite	Weak	Weak.		
Regularity	Irregular	Regular	Irregular	Fair	Irregular	Fairly regular	Irregular	Fairly regular.		
Value above or below contract rate ..	Rs. 16 1/4	Rs. 3 on	Rs. 16 off	Rs. 25 off	Per	Rs. 22 off	Rs. 7 off	Per.		
Insol	Rs. 192	Rs. 168	F. G. M. G. Branch No. 2, July/Aug. 1933 delivery. Rs. 207.	F. G. M. G. Branch H. C. No. 2, April/ May 1935 delivery Rs. 224.	F. G. M. G. Branch H. C. No. 2, July/ August 1935 deli- very, Rs. 224.	F. G. M. G. Branch H. C. No. 2, July/ August 1936 deli- very, Rs. 228.	F. G. M. G. Branch H. C. No. 2, July/ August 1937 deli- very, Rs. 239.	F. G. M. G. Branch H. C. No. 2, April/ May 1939 delivery, Rs. 161.		
Date of Valuation	19-8-31	13-7-32	29-7-33	29-8-34	20-8-35	8-8-36	3-9-37	10-9-38.		
Remarks										

Table 19.--SPINNING TEST RESULTS FOR BIJAPUR COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Sample No.	Cotton.	Season.	Date of Spinning.	County Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				DUNO FRAME PARTICULARS.*				YARN TEST RESULTS.								TEMPER- ATURE (°F.).	RELATIVE HUMIDITY (%).			
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 hanks per hour.	Front Roller Speed, R.P.M.	Spindle Speed, R.P.M.	Draft.	Turns per Inch.	LVS.			BALISTIC.			Turns per Inch, Actual.			Singles Room.		
															Count Actual.	Strength (lbs.)	Count-Strain- ing Product.	Count Actual.	Work of Rupture (each-lbs.)	Count-Work Product.					Evenness Class.	Meters per Yard.
1156	Bijapur ..	1930-31	15-8-31	20 A	10	12.3	11.0	0.6	22.5	91	157	7,700	5.43	17.09	19.1	57.8	1,011	101.2	2,071	5	2.0	17.2	80	73	70	
1150	Bijapur ..	1930-31	15-8-31	20 C		..	..	..	..	80	179	9,700	5.93	20.23	20.3	59.8	1,211	103.0	2,101	5	1.7	10.2	86	76	81
1397	Bijapur ..	1931-32	21-7-32	12	10	12.0	13.9	0.0	29.1	51	185	7,250	1.13	13.02	12.2	93.7	1,201	205.4	3,163	3	1.8	13.3	87	76	80	
1397	Bijapur ..	1931-32	10-7-32	10		..	..	..	..	43	174	7,500	5.22	15.07	15.3	63.7	1,039	121.0	1,906	4	1.6	15.4	89	76	70
1522	Bijapur ..	1932-33	4-9-33	16	10	19.1	9.5	0.6	26.4	102	192	8,000	3.13	15.97	16.0	70.0	1,130	125.6	2,022	4	0.5	15.1	86	72	70	
1522	Bijapur ..	1932-33	4-9-33	20 A		..	..	..	..	138	181	9,000	3.81	17.03	19.1	53.8	1,053	102.3	2,015	5	1.0	17.0	87	70	75
2474	Bijapur ..	1933-34	5-9-34	16	10	13.1	13.0	0.4	21.8	19	192	8,250	6.13	15.97	15.0	92.1	1,137	118.0	2,324	4	1.8	15.4	85	73	73	
2474	Bijapur ..	1933-34	5-9-31	20 A		..	..	..	..	57	197	9,200	3.81	17.09	19.7	94.3	1,207	107.2	2,133	5	1.5	17.2	81	77	
2512	Bijapur ..	1934-35	3-9-35	16	10	11.0	12.8	0.3	23.1	12	193	8,700	5.43	15.07	16.2	93.0	1,091	132.1	2,090	3	1.0	15.4	83	74	70	
2512	Bijapur ..	1934-35	10-9-35	20 A		..	..	..	..	31	177	8,500	5.57	17.03	19.3	81.5	1,373	123.8	2,560	1	0.8	17.0	80	70	82
2512	Bijapur ..	1934-35	18-9-35	20 B		..	..	..	..	16	190	9,100	3.69	19.20	20.0	81.1	1,012	123.1	2,163	3	1.5	13.1	85	73	70
3324	Bijapur ..	1935-36	19-8-36	14	10	11.9	10.0	0.3	21.5	22	193	8,500	5.55	11.03	11.7	81.1	1,192	132.1	2,015	3	0.8	11.6	80	72	75	
3324	Bijapur ..	1935-36	20-8-36	10		..	..	..	..	12	191	8,150	6.25	15.97	10.2	71.0	1,160	115.8	2,362	3	0.5	15.4	83	74	70
3324	Bijapur ..	1935-36	19-8-36	20 B		..	..	..	..	21	191	10,500	5.60	10.26	10.7	63.7	1,737	116.2	2,324	3	1.0	13.7	86	73	70
3652	Bijapur ..	1936-37	8-9-37	14	10	13.3	10.0	0.4	23.7	0	190	7,500	5.19	11.03	14.0	94.7	1,320	131.0	3,521	3	1.5	11.3	91	65	68	
3652	Bijapur ..	1936-37	10-9-37	16		..	..	..	..	54	191	8,500	1.59	15.07	16.7	67.1	1,121	130.0	2,163	1	1.2	13.3	91	67	70
3652	Bijapur ..	1936-37	10-9-37	20 H		..	..	..	..	20	192	10,500	6.14	19.20	20.0	50.2	1,158	101.3	2,163	4	1.2	13.2	91	67	74
4250	Bijapur ..	1937-38	27-9-38	11	10	14.0	10.2	0.1	23.0	15	219	8,000	5.22	11.03	13.3	103.3	1,157	138.0	2,591	3	0.5	11.2	89	68	73	
4250	Bijapur ..	1937-38	27-9-38	16		..	..	..	..	24	203	9,200	5.10	13.07	15.3	50.0	1,110	155.2	2,463	1	0.6	15.2	80	60	81

• Diameter of ring frame front roller—2". Diameter of rings—1 1/2".

It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample under mill conditions it would be less than shown here.

20.—BAGALKOTE COTTON.

These samples have been very kindly supplied by the East India Cotton Association, after inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
1157	Bagalkote	Bagalkote	1930-31
1433	"	"	1931-32
1893	"	"	1932-33
2460	"	"	1933-34
2840	"	"	1934-35
3391	"	"	1935-36
3653	"	"	1936-37
4257	"	"	1937-38

I. SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*—Upto 1933-34 (inclusive):—Poreupine, Crighton (twice), Hopper Scutcher (3 times).

1934-35 onwards:—Hopper bale opener, Horizontal cleaner, Crighton (once) Gridded dust trunks, Cago exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*:—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter Rotor and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards:—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tapo drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

		BAGALKOTE.							
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Colour	..	Creamy	.. Creamy-white.	Creamy	.. Dull-h creamy.	Creamy	.. Creamy-white.	Creamy	.. White to creamy-white.
Cleanliness	..	Leafy	.. Leafy; slightly stained.	.. Somewhat stained; leafy.	.. Leafy	.. Leafy	.. Leafy	.. Leafy	.. Very leafy.
Feel	..	Good	..	.. Good	..	.. Fairly good	.. Good	.. Good-bodied	.. Fair.
Glazing and neppiness	..	..	.. Well-glazed	.. Fairly well-glazed.	..	.. Good as knotted and nepped similar.	.. Well-glazed	..	.. Well-glazed.
Seeds	..	.. A fair amount of cut seed; 1.9% ginned and unginned.	.. 0.75% unginned.	.. 1.2% ginned and unginned.	.. 2.97% partly ginned seeds and lapses.	..	.. 1.83% full clean seed.	.. Ginned and unginned 0.70%.	.. A few ginned.
Card Silver	..	.. Fairly clean	.. Almost clean	.. Clean	.. A little leafy	.. Fairly clean	.. A little leafy	.. A little leafy	.. Leafy.
Card Web	..	.. Even and free of nep.	.. Fairly good	.. Even and nep-free.	..	.. Somewhat neppy.	.. Good	.. Good; nep-free	.. A trifle neppy.
Weight of 10 flat strips.	..	21.3 grams	.. 19.2 grams	.. 10.5 grams	.. 24.4 grams	.. 27.9 grams	.. 17.5 grams	.. 14.1 grams	.. 10.7 grams.
Remarks	..	.. A trifle leafy.	.. Ring frame run at unusually low speed due to excessive breakages.	..	..	..	..	..	..

(b) Yarn :—

		BAGALKOTE.							
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Cleanliness	..	.. Slightly leafy	.. Fairly clean	.. Clean	.. Almost clean	.. Fairly clean	.. A little leafy	.. Fairly leafy	.. A little leafy.
Evenness	..	.. Fairly even	.. Unusually uneven.	.. Fairly even	.. Fairly even	.. Even	.. Even	.. Even	.. Even.
Neppiness	..	.. Fairly free of nep.	.. Almost nep-free	.. Almost free of nep.	.. Almost free of nep.	.. Somewhat neppy.	.. Almost free of nep.	.. Almost free of nep.	.. Free of nep.
	..	..	.. A good deal slubby.	..	..	.. A trifle slubby.	..	..	..

3. Spinning Test Details and Results :—See Table 20 on page 60.

II.—REPORT OF THE STANDARDS COMMITTEE FOR BAGALKOTE COTTON.

[illegible]

Table 20.—SPINNING TEST RESULTS FOR BAGALKOTE COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Normal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAMES PARTICIPANTS.*				YARN TEST RESULTS.										TENDER-ARM COUNT (C.P.)	RELATIVE HUMIDITY (%).	
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per Inch.	T.E.L.			D.I.E.S.T.E.C.				Twists per Inch, Actual.	Steps per yard.			Twists per Inch, Actual.
															Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Yards of Yarn per (inch-lb.)	Count-Work Product.						
1157	Bagalkote.	1930-31	14-8-31	20A	10	13.0	12.2	0.6	24.5	57	104	8100	0.03	17.98	10.0	57.0	1134	20.3	104.6	2123	5	2.2	17.3	85	78	80
1157	Bagalkote.	1930-31	14-8-31	20C		..	..	..	..	63	100	10850	0.10	20.25	20.0	60.1	1322	20.2	100.5	2157	4	2.0	10.4	87	74	70
1433	Bagalkote.	1931-32	20-8-32	12	9	13.7	14.8	0.8	27.1	124	104	6800	4.50	14.65	12.0	50.6	670	12.1	131	2236	5	1.2	14.2	89	70	72
1433	Bagalkote.	1931-32	25-8-32	10B		..	..	..	..	120	130	6000	5.00	10.97	15.8	31.3	542	15.0	117.0	1870	0	1.5	10.3	89	71	70
1433	Bagalkote.	1931-32	20-8-32	20C		..	..	..	..	173	110	6200	2.81	20.23	10.2	25.8	495	18.8	65.4	1701	7	1.0	19.4	80	70	60
1823	Bagalkote.	1932-33	4-9-33	10A	10	13.8	11.7	0.3	24.1	55	182	8000	5.23	15.07	15.6	93.3	1455	10.0	137.2	2105	4	1.5	16.3	86	72	74
1823	Bagalkote.	1932-33	4-9-33	10B		..	..	..	..	18	103	8800	6.31	10.97	15.8	98.1	1555	10.0	147.4	2359	4	1.8	10.0	87	67	78
2100	Bagalkote.	1933-34	23-8-34	10A	10	15.0	14.0	0.3	27.1	12	188	8250	5.53	15.97	10.4	84.5	1350	10.4	125.2	2500	4	1.8	15.5	84	77	80
2100	Bagalkote.	1933-34	22-8-34	20A		..	..	..	..	47	175	8150	5.83	17.03	10.0	64.6	1256	10.7	109.4	2150	4	2.2	17.3	84	70	78
2100	Bagalkote.	1933-34	22-8-34	20B		..	..	..	..	21	183	8800	5.83	10.20	10.8	50.2	1113	10.9	112.4	2220	4	2.0	18.8	85	74	74
2840	Bagalkote.	1934-35	9-9-35	10A	10	11.2	10.2	0.3	24.0	18	103	8300	5.55	15.07	10.7	110.2	1400	10.4	102.8	3122	3	4.0	15.4	81	73	73
2840	Bagalkote.	1934-35	9-9-35	20A		..	..	..	..	10	180	8250	5.03	17.04	20.5	70.7	1034	20.4	120.4	2500	4	3.5	17.2	83	77	72
2840	Bagalkote.	1934-35	9-9-35	20B		..	..	..	..	5	185	9800	5.03	10.20	20.0	90.0	1600	20.1	133.0	2935	4	2.8	18.5	85	74	71
2840	Bagalkote.	1934-35	17-9-35	24		..	..	..	..	30	176	9350	7.22	10.73	25.5	50.6	1443	25.4	67.0	2161	4	3.2	19.0	84	70	70
3391	Bagalkote.	1935-36	7-10-36	10	10	14.5	12.2	0.4	25.2	12	104	8800	6.43	15.07	10.1	85.7	1350	16.4	133.2	2500	3	1.2	15.0	83	72	70
3391	Bagalkote.	1935-36	8-10-36	20A		..	..	..	..	10	170	8500	8.95	17.04	20.1	61.2	1280	20.0	108.4	2233	4	1.2	17.2	89	70	71
3391	Bagalkote.	1935-36	6-10-36	20B		..	..	..	..	42	194	10200	6.07	19.20	20.1	72.2	1451	20.6	110.0	2278	4	1.0	18.5	90	70	72
3653	Bagalkote.	1936-37	11-6-37	14	10	14.4	8.1	0.2	21.5	0	205	6750	6.24	11.94	14.0	104.5	1463	17.7	189.2	2502	3	0.8	14.5	91	69	73
3653	Bagalkote.	1936-37	10-6-37	10A		..	..	..	..	12	101	8150	4.77	13.07	15.0	89.2	1402	17.0	147.4	2250	3	0.5	15.0	92	64	73
3653	Bagalkote.	1936-37	11-6-37	20B		..	..	..	..	10	190	10200	6.14	19.20	20.3	64.3	1386	20.0	111.8	2250	4	0.2	18.5	91	69	78
4257	Bagalkote.	1937-38	27-6-38	10A	10	12.3	11.8	0.5	23.1	6	200	6100	2.61	15.07	15.4	111.8	1722	15.3	107.2	2910	3	0.2	13.3	90	67	81
4257	Bagalkote.	1937-38	28-6-38	20B		..	..	..	..	47	207	10800	0.10	19.23	20.2	70.9	1914	20.0	120.6	2191	3	0.5	18.5	90	64	84

* Diameter of fine-frame front roller—1". Diameter of rings—11".

† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabouts; for bulk sample spun under mill conditions it would be less than shown here.

21.—CAMBODIA COTTON.

These samples have been very kindly supplied by the East India Cotton Association after inspection and approval by their Standards Committee, in accordance with an agreement made with the Association to supply to the Technological Laboratory, for samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
762	Cambodia.	Coimbatore.	1929-30.
1159	"	Tirupur.	1930-31.
1398	"	"	1931-32.
1894	"	"	1932-33.
2436	"	"	1933-34.
2839	"	"	1934-35.
3390	"	"	1935-36.
3701	"	"	1936-37.

I.—SPINNING TESTS.

Treatment :—

Blow-room.—Upto 1933-34 (inclusive):—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards:—Hopper bale opener, Horizontal Cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper Feeder, Scutcher (3 times).

Card-room.—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards:—As above, but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

Spinning Master's Report :—

(a) Cotton :—

CAMBODIA.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
.. ..	Creamy-white to creamy; bright.	Creamy-white; bright.	Creamy-white; bright.	Creamy-white; bright.	White to creamy-white; bright.	White to creamy-white; bright.	White to creamy-white; bright.	Creamy-white; bright.
.. ..	Clean ..	Fairly clean ..	Clean ..	Clean ..	Clean ..	Clean ..	Clean ..	Clean; a little stained.
.. ..	Good bodied ..	Very good ..	Good ..	Good-bodied ..	Good ..	Slightly smooth.	Good-bodied ..	..
.. ..	Napped and knotted.	Well-ginned ..	Fairly well-ginned.	Fairly well-ginned.	A little knotted in ginning.	A little knotted in ginning.	Fairly well-ginned.	A little knotted.
.. ..	..	..	..	..	1% full seeds...	Some unginned	..	A few full ginned seeds.
.. ..	..	Clean ..	Clean ..	Clean ..	Clean ..	Clean ..	Clean ..	Clean ..
.. ..	A little neppy.	A trifle neppy.	Fairly good ..	Fairly good ..	Even and somewhat neppy.	Fairly good ..	A little neppy.	Neppy.
10 flat strips	22.1 grams.	25.3 grams.	22.2 grams.	27.8 grams.	28.8 grams.	31.0 grams.	21.2 grams.	26.0 grams.
..

(b) Yarn :—

CAMBODIA.								
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
.. ..	Clean ..	Clean ..	Clean ..	Clean ..	A little lacy ..	Clean ..	Almost clean ..	Fairly clean.
.. ..	Fairly even ..	Even ..	Even ..	Fairly even ..	Fairly even ..	Even ..	Even in the 20's only.	Fairly even.
.. ..	Fairly neppy ..	A little neppy.	A little neppy.	Somewhat neppy.	Somewhat neppy.	Somewhat neppy.	Fairly neppy ..	Neppy.
.. ..	..	..	..	..	..	..	..	A little slubby.

Spinning Test Details and Results :—See Table 21 on page 63.

II.—REPORT OF THE STANDARDS COMMITTEE FOR CAMBODIA COTTON.

CAMBODIA.

	1930-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Contract valued under	F. G. M. G. Broach.	F. G. M. G. Broach.	F. G. M. G. Broach.	F. G. M. G. Broach.	F. G. M. G. Broach.	F. G. M. G. Broach.	F. G. M. G. Broach.	F. G. M. G. Broach.
	No. 2.	No. 2.	No. 2.	No. 2.	No. 2.	No. 2.	No. 2.	No. 2.
Class	Fine ..	Fully good ..	Supertine ..	Fine to superfine ..	Barely fully good ..	Strict Fine ..	Fine ..	Fine.
Colour	Creamy ..	Creamy ..	Creamy ..	Creamy-white ..	Dull creamy ..	Creamy-white ..	Creamy ..	Creamy.
Staple Length	One inch ..	31/32 inch.	One inch ..	31/32 inch ..	35/16 inch ..	15/16 inch ..	15/16 inch ..	20/32 inch.
Staple Strength	Good ..	Good ..	Good ..	Good ..	Good ..	Fair ..	Fair ..	Fair.
Regularity	Regular ..	Regular ..	Regular ..	Regular ..	Slightly irregular ..	Fair ..	Moderately regular	Fair.
Value above or below contract rate ..	Rs. 90 on ..	Rs. 70 on ..	Rs. 60 on ..	Rs. 65 on ..	Rs. 65 on ..	Rs. 75 on ..	Rs. 35 on ..	Rs. 65 on.
Basis	Rs. 242 ..	Rs. 162 ..	Rs. 168 ..	F. G. M. G. Broach.	F. G. M. G. Broach.	F. G. M. G. Broach.	F. G. M. G. Broach.	F. G. M. G. Broach.
				No. 2, July/Aug. 1933 delivery, Rs. 207.	No. 2, July/Aug. 1934 delivery, Rs. 221.	No. 2, July/Aug. 1935 delivery, Rs. 221.	No. 2, April/May 1937 delivery, Rs. 221.	No. 2, July/Aug. 1937 delivery, Rs. 222.
Date of Valuation	6-6-30 ..	10-9-31 ..	13-7-32 ..	20-7-33 ..	31-7-34 ..	29-8-35 ..	28-9-36 ..	30-6-37.
Remarks .. ..	..	..	..	..	..	..	..	..

Table 21.—SPINNING TEST RESULTS FOR CAMBODIA COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.						TEMPERATURE ROOM (°F.).	RELATIVE HUMIDITY (%).			
						Flow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss†	Yarn Breakage per 100 revolutions per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per Incli.	T.R.A.		BALLISTIC.		Yarnness Class.			Reps per yard.	Turns per Incli. Actual.	
															Counts Actual.	Strength (lbs.)	Count-Strain†	Counts Actual.		Work of Rupture (Inch—lb.)	Count-Work Product.			
702	Cambodia ..	1929-30	10-6-30	21	10	5.6	11.3	0.6	16.7	10	175	..	5.05	23.0	61.4	1529	23.0	102.4	2117	1	5.5	19.0	91	69
703	Cambodia ..	1929-30	20-6-30	30A	..	..	..	..	..	30	160	..	7.50	30.0	103.1	1392	30.0	68.6	2053	5	5.7	21.1	89	65
1159	Cambodia ..	1930-31	18-8-31	21	10	5.8	12.6	0.5	12.0	31	180	9700	5.91	23.3	73.0	1722	23.3	118.8	2764	3	3.5	18.8	81	76
1159	Cambodia ..	1930-31	18-8-31	30B	..	..	..	..	..	22	160	9700	7.30	30.1	53.0	1019	29.5	90.4	2067	4	1.7	22.1	81	78
1393	Cambodia ..	1931-32	20-7-32	21	10	5.6	11.7	0.4	10.8	20	178	9000	5.76	27.5	68.6	1012	27.5	113.0	2073	3	2.8	19.2	85	77
1393	Cambodia ..	1931-32	20-7-32	30A	..	..	..	..	..	26	153	9050	7.22	20.5	51.4	1316	20.5	86.0	2555	1	3.5	21.1	80	76
1894	Cambodia ..	1932-33	30-8-33	24	10	5.5	13.8	0.1	18.2	55	178	6000	5.53	23.0	65.0	1518	21.2	110.0	2662	1	3.5	19.1	87	70
1894	Cambodia ..	1932-33	30-8-33	30A	..	..	..	..	..	70	162	9700	7.03	20.0	15.2	1351	20.1	82.2	2171	5	3.8	20.6	82	68
2130	Cambodia ..	1933-34	9-8-31	20	10	7.5	14.6	0.4	21.3	10	107	6550	5.81	20.0	83.0	1072	20.0	133.2	2661	3	5.2	17.3	81	80
2130	Cambodia ..	1933-34	9-8-31	30A	..	..	..	..	..	13	162	6500	0.71	20.8	10.1	1129	20.7	89.0	2518	5	4.2	21.4	81	80
2656	Cambodia ..	1933-34	0-8-31	31	..	..	..	..	..	19	116	9050	7.13	33.7	39.0	1335	33.7	75.0	2523	6	4.5	22.6	81	80
2839	Cambodia ..	1931-35	4-9-35	20	10	5.0	11.8	0.2	10.2	5	107	9700	0.07	20.2	91.2	1412	20.6	131.1	2769	3	3.8	17.1	85	72
2839	Cambodia ..	1931-35	4-9-35	30A	..	..	..	..	..	13	158	9700	0.28	20.8	51.5	1621	20.7	84.6	2631	1	3.5	21.1	86	72
2839	Cambodia ..	1931-35	5-0-35	31	..	..	..	..	..	12	151	9700	7.11	33.2	17.1	1501	33.5	80.8	2707	5	3.5	22.0	86	71
3290	Cambodia ..	1935-36	5-10-36	20	10	5.5	12.1	0.3	17.2	0	166	9550	0.07	20.0	90.2	1401	20.0	133.1	2664	3	3.5	17.3	89	69
3290	Cambodia ..	1935-36	6-10-36	30A	..	..	..	..	..	13	160	9100	0.03	20.3	57.0	1070	20.5	90.0	2565	5	3.2	20.0	89	72
3290	Cambodia ..	1935-36	7-10-36	31	..	..	..	..	..	12	110	9100	7.57	33.2	10.0	1527	32.7	77.2	2521	5	3.8	22.2	89	70
3701	Cambodia ..	1936-37	15-7-37	20	10	5.7	12.8	0.5	14.1	21	210	10250	0.28	20.2	92.0	1858	20.0	131.1	2710	3	1.2	17.1	85	81
3701	Cambodia ..	1936-37	17-7-37	30A	..	..	..	..	..	20	171	10300	0.50	20.8	51.8	1088	20.5	87.6	2072	5	1.0	20.7	87	78
3701	Cambodia ..	1936-37	16-7-37	34	..	..	..	..	..	24	148	9500	7.13	31.4	10.2	1389	31.3	80.8	2771	6	4.8	22.1	85	79

* Diameter of ring frame front roller—1". † It is to be noted that the total loss is for a small sample weighing 10 lbs., for bulk sample spun under mill conditions it would be less than shown here.

22.—TINNEVELLY COTTON.

These samples have been very kindly supplied by the East India Cotton Association, inspection and approval by their Standards Committee, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, bales of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
1162	Tinnevelly.	Tuticorin.	1930-31
1400	"	"	1931-32
1883	"	"	1932-33
2461	"	"	1933-34
2841	"	"	1934-35
3392	"	Virudanagar.	1935-36
3699	"	"	1936-37
4260	"	Tuticorin	1937-38

I. SPINNING TESTS.

Treatment :—

a) *Blow-room*.—Upto 1933-34 (inclusive) :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

b) *Card-room*.—Upto 1933-34 (inclusive) :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

Spinning Master's Report :—

a) *Cotton* :—

TINNEVELLY.									
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.	
.. ..	Creamy-white	White to creamy-white; brightish.	White to creamy-white; bright.	Creamy-white; bright.	White to creamy-white; bright.	White to creamy-white.	Creamy-white..	Creamy-white; brightish.	
.. ..	Fairly clean; occasional spots of stain.	Fairly clean ..	Clean ..	Fairly clean ..	Fairly clean ..	Somewhat stained; a little leafy.	Clean ..	A little leafy.	
.. ..	Soft but good..	Good ..	Good ..	Smooth and bodied.	Good ..	Good-bodied ..	Good ..	Good.	
.. ..	Fairly well-ginned.	Fairly well-ginned.	Well-ginned ..	Slightly knotted.	Well-ginned ..	A little knotted	Knotted ..	A little knotted	
.. ..	..	..	..	..	..	..	Some ..	..
.. ..	Practically clean	Almost clean ..	Clean ..	Fairly clean ..	Clean ..	Almost clean ..	Good ..	Leafy.	
.. ..	Even and free of nep	Almost free.	Good ..	A little acppy..	Good ..	Good ..	Good; acppy	A little acppy.	
.. ..	10 flat strips 19.0 grams	20.6 grams	22.4 grams	27.2 grams	26.1 grams	16.7 grams	29.0 grams	18.5 grams	
..	

b) *Yarn* :—

TINNEVELLY.								
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
.. ..	A trifle leafy ..	Clean ..	Clean ..	Almost clean ..	Fairly clean ..	Fairly clean ..	A little leafy ..	A little leafy.
.. ..	Fairly uneven.	Fairly even ..	Fairly even ..	Fairly even ..	Even ..	Even ..	Even ..	Even.
.. ..	Neppey ..	Free of nep	Free of nep	Fairly free of nep	Fairly free of A little acppy..	Neppey ..	..	A little acppy.
.. ..	..	..	..	..	Somewhat slabby.	..	..	..

Spinning Test Details and Results :—See Table 22 on page 66.

II.—REPORT OF THE STANDARDS COMMITTEE FOR TINNEVELLY COTTON.

TINNEVELLY.

	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Contract valued under	F. G. M. G. Branch No. 2.	F. G. M. G. Branch No. 2.	F. G. M. G. Branch No. 2, July/Aug. 1933 delivery.	F. G. M. G. Branch Hedge Contract No. 2.	F. G. M. G. Branch Hedge Contract No. 2, July/Aug. 1935 delivery.	F. G. M. G. Branch Hedge Contract No. 2, April/May 1937 delivery.	F. G. M. G. Branch Hedge Contract No. 2, July/Aug. delivery.	F. G. M. G. Branch Hedge Contract No. 2, April/May 1939 delivery.
Class	Fully good to fine ..	Superfine ..	Superfine ..	Strict Fully good ..	Fine ..	Fully good to fine ..	Fully good ..	Fully good.
Colour	Creamy-grey ..	Creamy-white ..	Greyish-white ..	Creamy-white ..	Whitish ..	Creamy-white ..	Creamy ..	Creamy.
Staple Length	3/4 inch ..	7/8 inch ..	13/16 inch ..	Full 13/16 inch ..	3/4 inch ..	3/4 inch ..	3/4 inch ..	3/4 inch.
Staple Strength	Weak ..	Fair ..	Good ..	Fair ..	Fair ..	Fair ..	Fair ..	Weak.
Regularity	Very irregular ..	Regular ..	Regular ..	Irregular ..	Irregular ..	Irregular ..	Irregular ..	Irregular.
Value above or below contract rate ..	Rs. 30 on ..	Rs. 25 on ..	Rs. 40 on ..	Rs. 25 on ..	Rs. 30 on ..	Rs. 5 on ..	Rs. 35 on ..	Rs. 10 on. ..
Basis	Rs. 143 ..	Rs. 108 ..	F. G. M. G. Branch No. 2, July/Aug. 1933 delivery, Rs. 207.	F. G. M. G. Branch Hedge Contract No. 2, July/Aug. 1934 delivery, Rs. 220.	F. G. M. G. Branch Hedge Contract No. 2, July/Aug. 1935 delivery, Rs. 224.	F. G. M. G. Branch Hedge Contract No. 2, April/May 1937 delivery, Rs. 221.	F. G. M. G. Branch Hedge Contract No. 2, July/Aug. delivery, Rs. 225.	F. G. M. G. Branch Hedge Contract No. 2, April/May 1939 delivery, Rs. 151.
Date of Valuation	25-8-31 ..	13-7-32 ..	26-7-33 ..	12-8-34 ..	20-8-35 ..	29-9-36 ..	28-9-37 ..	19-9-38.
Remarks	Poor style for this growth.	..	..	..	..	..	..	..

Table 22.—SPINNING TEST RESULTS FOR TINNEVELLY COTTON.

Sample No.	Cotton.	Season.	Date of spinning.	Counts nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PATTERNS.*				YARN TEST RESULTS.										Spinning Room.	Relative Humidity (%).			
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per inch.	I.E.A.			BALLISTIC.			Breakers Class.	Steps per yard.	Turns per inch Actual.					
															Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Machine (lineal ft.)	Count-Work Product.								
102	Tinnevely	1890-31	2-9-31	10A	19	0.1	10.3	0.0	10.0	100	152	7,350	6.03	15.07	53.0	811	1,901	15.0	127.8	1,901	4	0.2	16.0	85	75	80	75	80
1400	Tinnevely	1891-32	21-7-32	12	10	5.0	11.7	0.5	17.3	100	185	7,250	5.09	13.02	84.1	1,010	2,112	12.4	200.2	2,112	4	0.8	13.3	82	79	80	79	80
1409	Tinnevely	1891-32	21-7-32	10A		..	..	..	..	101	162	7,300	5.35	15.07	63.0	953	2,252	15.0	197.2	2,252	4	1.2	15.3	83	74	85	74	85
1883	Tinnevely	1892-33	18-8-33	12	10	0.7	11.4	0.3	17.0	16	193	7,050	5.00	13.02	105.8	1,250	2,514	12.1	200.8	2,514	3	1.0	13.4	87	69	70	69	70
1893	Tinnevely	1892-33	18-8-33	10A		..	..	..	..	30	180	8,000	0.11	15.07	73.4	1,207	2,090	15.4	170.0	2,090	4	1.2	15.4	80	70	72	70	72
2401	Tinnevely	1893-34	23-8-34	10A	10	0.6	13.7	0.2	10.5	0	189	8,250	5.07	15.07	62.3	1,311	2,505	10.3	155.0	2,505	4	5.5	13.4	84	77	80	77	80
2401	Tinnevely	1893-34	22-8-34	20A		..	..	..	..	30	175	8,150	5.05	17.09	50.1	1,111	2,327	20.1	115.2	2,327	4	4.0	17.3	81	77	79	77	79
2401	Tinnevely	1893-34	22-8-34	20B		..	..	..	..	14	168	9,600	5.63	16.50	10.4	1,450	2,124	10.4	121.4	2,124	4	4.8	18.0	85	74	74	74	74
2841	Tinnevely	1894-35	5-9-35	10A	10	5.3	13.1	0.4	19.0	67	101	8,600	3.32	15.07	71.8	1,101	2,378	10.3	145.0	2,378	3	1.5	15.4	85	79	73	79	73
2841	Tinnevely	1894-35	9-9-35	20A		..	..	..	..	62	179	8,750	5.83	17.09	50.2	932	2,525	50.2	111.2	2,525	4	1.2	17.2	80	70	70	70	70
2841	Tinnevely	1894-35	9-9-35	20B		..	..	..	..	68	186	9,650	5.63	16.50	20.4	1,501	2,507	20.4	116.6	2,507	1	1.5	18.0	80	71	82	71	82
3392	Tinnevely	1895-36	7-10-36	10A	10	0.2	10.5	0.2	10.2	0	105	8,600	5.54	15.07	103.0	1,010	2,094	15.0	189.4	2,094	3	2.8	15.2	89	72	70	72	70
3392	Tinnevely	1895-36	8-10-36	20A		..	..	..	..	16	181	8,050	5.05	17.09	78.0	1,116	2,522	10.0	128.2	2,522	3	3.2	17.3	89	69	70	69	70
3609	Tinnevely	1896-37	21-7-37	14	10	7.0	10.7	0.2	22.7	73	201	8,400	1.21	14.05	14.7	1,164	2,658	14.7	191.1	2,658	4	4.2	14.1	85	78	80	78	80
3600	Tinnevely	1896-37	15-7-37	10A		..	..	..	..	0	190	8,700	5.07	15.07	10.0	1,281	2,607	10.0	168.0	2,607	3	4.2	15.2	84	82	80	82	80
3609	Tinnevely	1896-37	14-7-37	20A		..	..	..	..	21	195	9,500	5.07	17.09	10.8	1,270	2,452	10.8	129.4	2,452	1	4.8	17.4	83	83	79	83	79
4200	Tinnevely	1897-38	30-9-38	12	10	7.5	10.5	0.1	17.3	8	212	8,150	5.52	13.02	11.9	1,507	2,713	11.9	229.0	2,713	3	2.0	13.5	89	79	90	79	90
4200	Tinnevely	1897-38	30-9-38	10A		..	..	..	..	12	209	9,000	5.01	15.07	10.0	1,256	2,750	10.0	168.0	2,750	1	1.7	16.0	90	67	93	67	93
4209	Tinnevely	1897-38	30-9-38	10B		..	..	..	..	0	205	9,500	5.51	10.07	10.3	1,500	2,703	10.3	172.1	2,703	4	1.8	16.3	90	63	70	63	70

* Diameter of ring frame front roller : $\frac{3}{4}$ ". Diameter of stage : 14".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

23.—KARUNGANNI COTTON.

These samples have been very kindly supplied by the East India Cotton Association after inspection and approval by their Standards Committee, in accordance with an agreement made with the Association to supply to the Technological Laboratory, for samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Place.	Season.
1160	Karunganni	Virudanagar.	1930-31
1399	"	Tuticorin.	1931-32
1895	"	"	1932-33
2476	"	Tirupur.	1933-34
2843	"	Tuticorin.	1934-35
3393	"	Virudanagar.	1935-36
3700	"	Tuticorin.	1936-37
4259	"	"	1937-38

I.—SPINNING TESTS.

Treatment :—

Blow-room.—Upto 1933-34 (inclusive):—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards:—Hopper bale opener, Horizontal cleaner, Crighton (once) Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

Card-room.—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards:—As above, but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

Spinning Master's Report :—

Cotton :—

	KARUNGANNI.							
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
.. ..	Creamy-white; bright.	Creamy-white; brightish.	White to creamy-white; bright.	White to creamy-white; brightish.	White to creamy-white; bright.	White to creamy-white; bright.	Creamy-white; bright.	Creamy-white.
.. ..	Fairly clean.	Almost clean.	Clean.	Fairly clean.	Fairly clean.	Clean; a little stained.	Fairly clean.	A little leafy.
.. ..	Good.	Good.	Good-bodied.	Good soft.	Good smooth.	Good smooth.	Good smooth.	Good.
and neppliness	Well-ginned.	Well-ginned apart from some knotting.	Well-ginned.	Slightly knotted in ginnalag.	Fairly well-ginned.	Well-ginned.	A little knotted.	Knotted.
..
.. ..	Almost clean.	Clean.	Clean.	Fairly clean.	Almost clean.	Fairly clean.	Clean.	Fairly clean.
.. ..	Practically free of nop.	Fairly good.	Good.	Somewhat neppy.	Good.	Good.	Neppy.	Neppy.
10 flat strips	21.7 grams.	20.7 grams.	19.6 grams.	20.3 grams.	23.0 grams.	15.3 grams.	33.6 grams.	19.9 grams.
..

Yarn :—

	KARUNGANNI.							
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
.. ..	Practically clean.	Clean.	Clean.	Fairly clean.	Clean.	Almost clean.	A little leafy.	A little leafy.
.. ..	Fairly even.	Fairly even.	Fairly even.	Even.	Fairly even.	Even.	Even.	Even.
.. ..	Somewhat neppy.	Somewhat neppy.	Free of nop.	Somewhat neppy.	Fairly neppy.	Fairly neppy.	Neppy.	Neppy.
.. ..	..	..	A trifle slubby.	..	A trifle slubby.	..	..	..

*Spinning Test Details and Results :—*See Table 23 on page 69.

II.—REPORT OF THE STANDARDS COMMITTEE FOR KARUNCANNI COTTON.

KARUNCANNI.									
	1030-31.	1031-32.	1032-33.	1033-34.	1034-35.	1035-36.	1036-37.	1037-38.	
Contract valued under	F. G. M. G. Branch No. 2.	F. G. M. G. Branch No. 2.	F. G. M. G. Branch No. 2, July/Aug. 1933 delivery.	F. G. M. G. Branch No. 2, April/May 1933 delivery.	S. M. G. Branch No. 2, July/August 1933 del. very.	F. G. M. G. Branch No. 2, April/May 1937 delivery.	F. G. M. G. Branch No. 2, July/August 1937 del. very.	F. G. M. G. Branch No. 2, April/May 1939 delivery.	
Class	Fine.	Extra superfine.	Superfine.	About fine.	Strict fine.	Fine.	Strict fine.	Fully good to fine.	
Colour	White to creamy.	Whitish.	Slightly creamy-white.	creamy.	Whitish.	creamy-white.	Whitish.	creamy.	
Staple length	15/16 inch.	15/16 inch.	7/8 inch.	7/8 inch.	7/8 inch.	7/8 inch.	29/32 inch.	7/8 inch.	
Staple strength	Good.	Good.	Good.	Fair.	Good.	Fair.	Fair.	Soft.	
Regularity	Regular.	Regular.	Regular.	Fair.	Irregular.	Regular.	Irregular.	Irregular.	
Value above or below contract rate ..	Rs. 65 on.	Rs. 35 on.	Rs. 45 on.	Rs. 35 on.	Rs. 50 on.	Rs. 20 on.	Rs. 60 on.	Rs. 25 on.	
Basis	Rs. 102.	Rs. 108.	F. G. M. G. Branch No. 2, July/Aug. 1933 delivery, Rs. 207.	F. G. M. G. Branch No. 2, April/May 1933 delivery, Rs. 221.	F. G. M. G. Branch No. 2, July/August 1933 del. very, Rs. 221.	F. G. M. G. Branch No. 2, April/May 1937 delivery, Rs. 221.	F. G. M. G. Branch No. 2, July/August delivery, Rs. 222.	F. G. M. G. Branch No. 2, April/May 1939 delivery, Rs. 161.	
Date of Valuation	10-8-31.	13-7-32.	26-7-32.	20-8-34.	20-8-35.	28-9-30.	30-8-37.	10-9-38.	
Remarks .. ..	..	..	..	..	..	..	..	..

Table 23.—SPINNING TEST RESULTS FOR KARUNGANNI COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.										TEMPERATURE ACTIVITY (%).	
						Blow Room Loss.	Card Room Loss.	Spiraling Loss.	Total Loss.†	Yarn Breakage per 100 spindles per hour.	Front M. R. M.	Spindle Speed, N. P. M.	Draft.	Turns per Inch.	LEA.			DIALECTIC.			Mops per yard.	Turns per Inch Actual.	Spiraling Room.	Spiraling Room.			
															Counts Actual.	Strength (lbs.)	Count-Strangth Product.	Counts Actual.	Work of Rupture (Inch-lb.)	Count-work Product.							
1169	Karungannl.	1930-31	17-8-31	29	19	5.9	11.9	0.6	10.8	97	199	0,109	5.95	17.03	29.1	92.5	1,275	20.3	120.8	2,152	4	2.5	17.2	84	70	82	
1160	Karungannl.	1930-31	18-8-31	24		..	..	..	..	71	169	8,909	6.97	19.73	23.6	56.1	1,321	21.5	193.9	2,538	5	5.0	10.0	85	77	79
1999	Karungannl.	1931-32	20-7-32	29	19	5.8	11.4	9.9	17.9	135	189	9,309	5.81	17.93	19.0	63.3	1,299	20.2	117.2	2,597	4	3.9	17.2	87	79	83	
1999	Karungannl.	1931-32	21-7-32	24		..	..	..	..	118	159	8,800	9.13	19.73	23.7	59.9	1,299	23.5	191.1	2,453	5	3.3	18.8	89	77	85
1893	Karungannl.	1932-33	20-8-33	19	19	6.9	10.0	9.9	17.2	152	181	8,299	5.33	15.97	15.7	90.4	1,999	15.8	129.0	2,918	4	0.5	15.3	87	68	93	
1895	Karungannl.	1932-33	30-8-33	29		..	..	..	..	223	193	8,000	5.33	17.93	19.5	59.9	975	19.5	199.2	2,971	5	1.9	17.2	83	97	98
2470	Karungannl.	1933-34	5-9-34	16	19	7.5	13.3	9.3	29.1	9	192	3,250	5.53	15.07	19.0	91.2	1,597	16.9	163.2	2,503	3	3.6	15.5	85	73	74	
2476	Karungannl.	1933-34	5-9-34	29		..	..	..	..	52	183	9,250	9.22	17.93	29.1	93.9	1,281	29.0	115.9	2,312	4	4.9	17.3	83	81	71
2313	Karungannl.	1934-35	9-9-35	16	19	9.2	13.3	9.3	19.4	30	193	8,700	5.91	15.07	19.2	111.8	1,899	15.8	209.9	3,312	4	3.2	15.5	89	74	80	
2813	Karungannl.	1934-35	10-9-35	29		..	..	..	..	19	194	9,599	5.95	17.93	19.9	81.9	1,939	29.1	139.9	2,899	1	3.8	17.4	84	71	83
3393	Karungannl.	1935-36	7-10-36	19	19	4.4	9.5	9.4	13.8	24	299	8,899	5.51	15.97	15.7	197.1	1,691	15.8	297.2	3,271	3	4.9	15.2	89	72	70	
3393	Karungannl.	1935-36	8-10-36	29		..	..	..	..	19	189	8,899	6.95	17.93	19.7	89.2	1,589	19.9	111.9	2,818	3	3.8	17.2	83	72	72
3799	Karungannl.	1936-37	15-7-37	19	19	9.3	18.3	9.2	24.0	12	193	8,899	5.55	15.07	19.0	93.9	1,578	19.2	166.4	3,929	3	4.2	15.3	83	83	70	
3799	Karungannl.	1936-37	14-7-37	29		..	..	..	..	19	191	9,599	6.78	17.93	29.2	72.8	1,471	29.0	139.0	2,729	3	5.2	17.2	84	83	78
4259	Karungannl.	1937-38	29-9-38	19	19	7.9	19.8	9.2	17.2	9	229	9,930	5.65	15.97	15.9	111.2	1,819	15.7	292.2	3,175	3	4.9	15.3	83	79	82	
4259	Karungannl.	1937-38	29-9-38	29		..	..	..	..	9	299	9,799	5.19	17.93	19.8	82.9	1,911	19.7	137.9	2,699	3	4.2	17.2	89	69	70
4259	Karungannl.	1937-38	30-9-38	24		..	..	..	..	11	178	9,799	9.19	19.73	23.9	96.8	1,579	21.9	199.9	2,553	4	3.8	18.9	89	99	81

* Diameter of ring frame front roller—1". Diameter of rings—1½".

† It is to be noted that the total loss is for a small sample weighing 19 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

24.—A. R. KAMPALA COTTON.

These samples have been very kindly supplied by the East India Cotton Association, in accordance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Season.
1130	A. R. Kampala (K.L.A.)	1930-31
1498	A. R. Kampala (K.L.A.)	1931-32
1898	A. R. Kampala (K.L.A.)	1932-33
2464	A. R. Kampala (K.L.A.)	1933-34
2848	A. R. Kampala (B.K.T.)	1934-35
3396	A. R. Kampala (K.L.A.)	1935-36
3675	A. R. Kampala (K.L.A.)	1936-37
4105	A. R. Kampala	1937-38

I.—SPINNING TESTS.

Treatment :—

(a) *Blow-room*.—Upto 1933-34 (inclusive):—Porcupine, Crighton (twice), Hopper, Scutcher (3 times). The 1930-31 sample was passed only once through the Crighton.

1934-35 onwards:—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (twice).

(b) *Card-room*.—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards:—As above, but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

Spinning Master's Report :—

(a) *Cotton* :—

	KAMPALA.							
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
..	White to creamy-white; bright.	Creamy-white; brightish.	White; bright.	White to creamy-white; bright.	White to creamy-white.	White to creamy-white; brightish.	Creamy-white to white; bright.	White to creamy-white.
es ..	Clean.	Very clean.	Clean.	Clean.	Clean.	Clean.	Very clean.	Very clean.
..	Good silky.	Good silky.	Good silky.	Smooth bodied.	Good Smooth.	Good silky.	Good bodied.	Soft.
& neppiness	Trifles too knotted and nepped.	A little knotted.	Somewhat knotted.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.
..
er ..	Clean.	Clean.	Clean and silky.	Clean.	Clean.	Clean.	Good; clean.	Clean.
b ..	Fairly neppy.	A little neppy.	A little neppy.	A little cloudy.	Good even.	Good.	Good; free of nep.	Fairly free of nep.
of 20 flat-trips	19.3 grams.	19.2 grams.	21.5 grams.	25.2 grams.	14.2 grams.	12.7 grams.	14.0 grams.	16.4 grams.
..

(b) *Yarn* :—

	KAMPALA.							
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
es ..	Clean.	Clean.	Clean.	Clean.	Clean.	Clean.	Clean.	Almost clean.
es ..	Even.	Even.	Very even.	Very even.	Very even.	Very even.	Even.	Even.
es ..	Somewhat neppy.	A trifle neppy.	Practically free of nep.	Fairly neppy.	Nep-free.	Somewhat neppy.	Free of nep.	Fairly free of nep.
s ..	..	..	..	..	..	..	..	..

Spinning Test Details and Results :—See Table 24 on page 72.

II.—REPORT OF THE SPECIAL APPEAL COMMITTEE FOR AFRICAN A. R. KAMPALA COTTON.

71

KAMPALA.									
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.	
Contract valued under	F. G. M. G. Broach No. 2.	F. G. M. G. Broach No. 2, April/May 1933 delivery.	F. G. M. G. Broach No. 2, July/August 1933 delivery.	F. G. M. G. Broach H. C. No. 2, July/August 1934.	F. G. M. G. Broach H. C. No. 2, April/May 1936 delivery.	F. G. M. G. Broach H. C. No. 2, April/May 1937 delivery.	F. G. M. G. Broach H. C. No. 2, July/August delivery.	F. G. M. G. Broach H. C. No. 2, July/Aug. 1938 delivery.	
Class	Superfine.	Fully good to fine.	Fine to superfine.	Fine.	Strict fine.	Barely fine.	Fine.	Barely fully good.	
Colour	White.	Bright creamy-white	White.	Creamy-white.	Dull white.	Creamy-white.	Creamy-white.	Whitish.	
Staple Length	1 1/16".	1 1/16".	1 3/32".	1 3/32".	1 1/32".	1 1/32".	Full 1 1/16".	1 1/16".	
Staple Strength	Good.	Fair.	Good.	Good.	Fair.	Moderate.	Normal.	Barely good.	
Regularity	Regular.	Regular.	Regular.	Good.	Regular.	Not quite so regular as Busoga.	Regular.	Slightly irregular.	
Value above or below contract rate ..	Rs. 115 on.	Rs. 112 on.	Rs. 145 on.	Rs. 130 on.	Rs. 128 on.	Rs. 136 on.	Rs. 192 on.	Rs. 107 on.	
Basis	Rs. 177.	F. G. M. G. Broach No. 2, April/May 1933 delivery, Rs. 218.	F. G. M. G. Broach No. 2, July/Aug. 1933 delivery, Rs. 205.	F. G. M. G. Broach H. C. No. 2, July/Aug. 1934 delivery, Rs. 223.	F. G. M. G. Broach H. C. No. 2, April/May 1936 delivery, Rs. 194.	F. G. M. G. Broach H. C. No. 2, April/May 1937 delivery, Rs. 221.	F. G. M. G. Broach H. C. No. 2, July/August delivery, Rs. 224.	F. G. M. G. Broach H. C. No. 2, July/August 1938 delivery, Rs. 141.	
Date of Valuation	16-7-31.	5-10-32.	7-8-33.	15-8-34.	20-8-35.	28-9-36.	16-6-37.	8-6-38.	
Remarks* .. .. .	..	Good Sample.	..	..	Staple weak.	1/12 off A. R. Kampala Box.	Noppy.	..	

* The difference between 'Pass' and 'Rejection' standards in 1935-36 is Rs. 7.

Table 24.—SPINNING TEST RESULTS FOR KAMPALA COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs)	WASTE PERCENTAGES.				RING FRAME PARTICULARS. *						YARN TEST RESULTS.						RELATIVE HUMIDITY (%).	TEMPERATURE (°F.).	
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Lost †	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns Per Inch.	TRA.			BALLISTIC.						
															Counts Actual	Strength (lbs.)	Count-Strength Product.	Counts Actual	Work of Ring (lb.)	Count-Work Product.				
1180	Kampala.	1930-31	29-7-31	20	10	1.1	10.3	0.1	11.3	10	103	6750	5.75	17.09	19.5	115.0	2212	10.3	201.8	3594	17.2	87	73	83
1190	Kampala..	1930-31	29-7-31	30		..	..	..	..	0	129	6650	6.70	21.80	29.0	07.2	1949	29.8	107.2	3191	21.2	86	76	85
1190	Kampala..	1930-31	30-7-31	40		..	..	..	..	8	139	6700	8.03	25.29	39.5	14.8	1730	30.5	80.2	3163	21.0	86	78	83
1498	Kampala..	1931-32	10-10-32	20	10	3.9	10.4	0.3	14.1	0	106	6800	5.81	17.03	20.2	106.0	2153	20.2	103.1	3707	17.2	87	69	69
1498	Kampala..	1931-32	10-10-32	30		..	..	..	..	0	162	6700	0.41	21.80	20.5	03.1	1870	20.2	106.2	3150	21.3	87	68	67
1498	Kampala..	1931-32	11-10-32	40		..	..	..	..	18	136	6700	8.07	25.29	40.5	38.7	1567	30.3	71.2	2916	24.0	87	67	61
1808	Kampala..	1932-33	5-0-33	20	16	5.1	10.0	0.1	14.1	17	105	6600	0.07	17.03	20.0	01.1	1545	20.6	178.8	3543	17.3	86	75	70
1808	Kampala..	1932-33	9-0-33	30		..	..	..	..	4	160	6650	0.03	21.80	29.5	65.2	1031	29.8	111.6	3120	21.1	85	77	70
1808	Kampala..	1932-33	9-0-33	40		..	..	..	..	13	133	6650	8.02	25.24	40.3	41.1	1684	30.9	81.0	2572	21.4	86	76	79
2404	Kampala..	1933-34	31-8-34	20	10	6.0	12.6	0.1	17.1	5	205	10000	5.04	17.04	20.2	109.7	2190	20.2	105.1	3017	17.1	87	70	82
2404	Kampala..	1933-34	31-8-34	30		..	..	..	..	0	163	10000	0.03	21.80	30.0	05.7	1971	29.0	109.1	3212	20.7	86	71	82
2404	Kampala..	1933-34	31-8-34	40		..	..	..	..	2	144	6000	8.71	25.23	39.2	11.1	1720	33.2	92.6	3150	21.3	86	72	86
2404	Kampala..	1933-34	30-8-34	50		..	..	..	..	4	171	10000	10.19	29.10	40.7	31.2	1531	40.3	52.8	2601	27.1	86	72	81
2843	Kampala..	1934-35	10-9-35	30	16	3.1	9.8	0.3	12.0	7	160	6550	7.00	21.80	29.7	01.6	1919	39.1	104.0	3231	21.1	85	70	70
2848	Kampala..	1934-35	11-9-35	40		..	..	..	..	15	138	6600	7.97	25.29	39.1	13.7	1722	39.2	92.0	3150	21.5	81	77	77
2848	Kampala..	1934-35	13-0-35	50		..	..	..	..	14	129	6600	10.19	29.10	50.1	30.1	1508	50.0	53.8	2900	27.1	84	70	67
3190	Kampala..	1935-36	0-10-36	30	10	7.4	8.3	0.2	11.0	0	173	10100	7.11	21.80	30.0	01.2	1941	31.1	101.2	3211	20.9	89	71	66
3300	Kampala..	1935-36	12-10-36	40		..	..	..	..	0	110	10400	7.81	25.29	40.1	19.3	1710	10.1	90.2	3210	21.1	89	65	62
3396	Kampala..	1936-36	13-10-36	50		..	..	..	..	5	139	10100	10.00	29.10	50.5	31.4	1590	62.1	62.0	3240	26.0	88	71	66
3675	Kampala..	1936-37	20-0-37	30	10	2.8	8.1	0.3	11.0	3	180	10200	7.70	20.74	30.8	09.0	2004	30.6	105.0	3231	10.8	80	78	73
3075	Kampala..	1936-37	25-6-37	10		..	..	..	..	7	161	10300	8.07	29.79	36.0	47.3	1915	39.9	81.0	3152	22.0	86	78	78
3075	Kampala..	1936-37	25-6-37	50		..	..	..	..	12	131	10300	0.81	20.75	46.1	32.8	1020	60.7	07.6	3320	23.8	80	77	70
4105	Kampala..	1937-38	21-0-38	20	10	6.7	10.1	0.1	14.0	5	213	10300	0.31	17.08	20.0	113.5	2274	20.1	203.6	4003	17.2	87	75	71
4105	Kampala..	1937-38	22-0-38	30		..	..	..	..	23	165	10400	0.50	20.71	29.6	67.0	1991	29.0	111.2	3325	16.0	89	74	81
4105	Kampala..	1937-38	22-0-38	40		..	..	..	..	12	162	10100	8.60	29.76	41.1	42.4	1743	40.0	78.6	3101	22.7	87	72	81
4105	Kampala..	1937-38	29-0-38	50		..	..	..	..	12	111	10500	11.01	20.75	51.2	30.8	1577	40.1	61.1	3181	26.1	87	73	70

* Diameter of ring frame front roller—1". Diameter of ring—1 1/8".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

25.—A. R. BUSOGA COTTON.

These samples have been very kindly supplied by the East India Cotton Association, inspection and approval by their Special Appeal Committee on African Cottons, in dance with an arrangement made with the Association to supply to the Technological Laboratory, for testing, samples of fair average cotton of the commercial crop.

Sample No.	Cotton.	Season.
1131	A. R. Busoga (K.G.I.)	1930-31.
1499	A. R. Busoga (N.S.S.)	1931-32.
1897	A. R. Busoga (K.A.L.)	1932-33.
2463	A. R. Busoga (N.W.D.)	1933-34.
2847	A. R. Busoga (K.A.L.)	1934-35.
3395	A. R. Busoga (N.S.S.)	1935-36.
3674	A. R. Busoga	1936-37.
4104	A. R. Busoga	1937-38.

I.—SPINNING TESTS.

Treatment :—

(a) *Blow-room.*—Upto 1933-34 (inclusive):—Porcupine, Crighton (twice), Hopper, Scutcher (3 times). The 1930-31 sample was passed only once through the Crighton.

1934-35 onwards:—Hopper bale opener, Horizontal Cleaner, Crighton (once) Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (twice).

(b) *Card-room.*—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards:—As above, but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

Spinning Master's Report :—

(a) *Cotton :—*

		BUSOGA.							
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
..	..	Creamy-white; very bright.	Brightish creamy-white.	Whit to creamy-white; brightish.	Creamy-white; bright.	Creamy-white; bright.	Whit to creamy-white; brightish.	Creamy-white; bright.	Creamy-white.
s	..	Clean ..	A few spots of stain.	Fairly clean ..	Clean ..	Clean ..	Clean ..	Clean; an occasional stain.	Very clean.
..	..	Soft and silky ..	Soft silky ..	Soft silky ..	Smooth-bodied	Silky ..	Good silky ..	Good silky ..	Soft; silky.
nd neppiness	..	Knotted and nepped.	Somewhat knotted.	Entirely well-ginned.	Fairly knotted.	Well-ginned ..	Well-ginned ..	Well-ginned ..	Well-ginned.
..	..	Too much cut ..	..	..	..	..	..	..	..
..	..	Clean ..	Clean ..	Silky and clean.	Clean ..	Clean ..	Clean ..	Good; clean ..	Soft; clean.
..	..	Much too neppy and uneven.	A trifle neppy.	Good ..	A little neppy.	Good ..	Good ..	Good; full; free of neps.	A little neppy.
10 flat strips.	..	20.7 grams	18.4 grams	20.1 grams	22.5 grams	19.6 grams	14.4 grams	14.0 grams	18.3 grams.
..

(b) *Yarn :—*

		BUSOGA.							
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
s	..	Clean ..	Clean ..	Clean ..	Clean ..	Clean ..	Clean ..	Fairly clean ..	Clean.
..	..	Even ..	Very even ..	Very even in the two lower counts.	Even ..	Even ..	Fairly even ..	Even ..	Even.
..	..	Fairly neppy ..	A little neppy.	Almost free of nep.	Fairly neppy ..	Fairly neppy ..	Neppy ..	Slightly neppy.	Almost free of nep.
..

Spinning Test Details and Results :— See Table 25 on page 75.

II. REPORT OF THE SPECIAL APPEAL COMMITTEE FOR AFRICAN A. R. BUSOGA COTTON.

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BUSOGA.

	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Contract valued under	F. G. M. G. Branch No. 2.	F. G. M. G. Branch No. 2, April/May 1933 delivery.	F. G. M. G. Branch No. 2, July/Aug. 1933 delivery.	F. G. M. G. Branch Hedge Contract No. 2, July/Aug. 1934 delivery.	F. G. M. G. Branch Hedge Contract No. 2, April/May 1936 delivery.	F. G. M. G. Branch Hedge Contract No. 2, April/May 1937 delivery.	F. G. M. G. Branch Hedge Contract No. 2, July/Aug. 1938 delivery.	F. G. M. G. Branch Hedge Contract No. 2, July/Aug. 1938 delivery.
Clean	Superfine ..	Fully good ..	Fine ..	Fully good to fine ..	Strict fine ..	Fine ..	Barely fine ..	Fine.
Colour	White ..	Creamy-white ..	Dull-white ..	Dull-white and creamy.	Creamy-white ..	Creamy-white ..	Creamy-white ..	Creamy-white.
Staple Length	1 1/8" ..	1 1/16" ..	1 1/16" ..	1 1/16" ..	Full 1 1/16" ..	1 1/16" ..	1 1/16" ..	1 1/16".
Staple Strength	Good ..	Fair ..	Good ..	Good ..	Good ..	Good ..	Good ..	Good.
Regularity	Regular ..	Rather irregular ..	Fairly regular ..	Regular ..	Regular ..	Regular ..	Slightly irregular ..	Good.
Value above or below contract rate ..	Rs. 110 on ..	Rs. 105 on ..	Rs. 138 on ..	Rs. 137 on ..	Rs. 127 on ..	Rs. 135 on ..	Rs. 188 on ..	Rs. 105 on.
Size	Rs. 177 ..	F. G. M. G. Branch No. 2, April/May 1933 delivery, Rs. 218.	F. G. M. G. Branch No. 2, July/Aug. 1933 delivery, Rs. 205.	F. G. M. G. Branch Hedge Contract No. 2, July/Aug. 1934 delivery, Rs. 223.	F. G. M. G. Branch Hedge Contract No. 2, April/May 1936 delivery, Rs. 194.	F. G. M. G. Branch Hedge Contract No. 2, April/May 1937 delivery, Rs. 221.	F. G. M. G. Branch Hedge Contract No. 2, July/Aug. 1938 delivery, Rs. 224.	F. G. M. G. Branch Hedge Contract No. 2, July/Aug. 1938 delivery, Rs. 141.
Date of Valuation	16-7-31 ..	5-10-32 ..	7-8-33 ..	15-8-34 ..	27-8-35 ..	28-9-36 ..	10-0-37 ..	8-0-38.
Remarks * .. ..	..	Fair average sample.	..	..	..	Pass A. R. Busoga.	..	..

* The difference between 'Pass' and 'Rejection' standards in 1935-36 is Rs. 7.

Table 25.—SPINNING TEST RESULTS FOR BUSOGA COTTON.

1	2	3	4	5	6	7	8	9	10	11	RING FRAME PARTICULARS.*				YARN TEST RESULTS.						TEMPERATURE AND HUMIDITY (%).				20	27
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.						Spiraling Room.	Spiraling Room.	Relative Humidity (%).				
						Blow Room Loss.	Card Room Loss.	Spiraling Loss.	Total Loss†	Yarn Breakages per 100 spindles	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per Inch.	Counts Actual.	Strength (lbs.)	Count-Strain Product.	BALLISTIC.					Reveres Class.	Reps per yard.	Turns per Inch. Actual.	
1131	Busoga ..	1930-31	29-7-31	20	8	5.3	12.3	0.0	17.4	20	105	0750	5.73	17.08	10.4	117.3	2276	109.8	3650	2	5.7	17.1	87	73	85	
1131	Busoga ..	1930-31	29-7-31	30		..	..	..	..	0	150	0630	0.87	21.80	20.3	60.1	2025	113.0	3110	4	5.5	20.0	80	79	80
1131	Busoga ..	1930-31	30-7-31	40		..	..	..	..	21	133	0700	8.89	23.23	30.0	11.1	1720	82.0	3238	5	5.6	24.3	80	78	83
1499	Busoga ..	1931-32	12-10-32	20	10	5.9	9.6	0.4	15.3	20	100	0700	5.05	17.08	20.7	100.0	2275	184.8	3885	2	2.2	17.3	80	05	67	
1499	Busoga ..	1931-32	11-10-32	30		..	..	..	..	10	103	0700	0.38	21.80	28.0	70.7	2022	118.2	3381	3	2.2	21.2	88	08	68
1499	Busoga ..	1931-32	11-10-32	40		..	..	..	..	5	130	0700	8.83	23.23	30.5	15.1	1781	70.8	3103	1	2.8	24.0	87	67	68
1997	Busoga ..	1932-33	5-9-33	20	10	7.5	10.0	0.5	17.1	88	100	0650	5.05	17.08	10.9	85.0	1709	185.8	3785	2	1.0	17.3	80	74	76	
1997	Busoga ..	1932-33	5-9-33	30		..	..	..	..	53	160	0600	0.47	21.80	20.1	01.8	1850	111.6	3102	3	1.8	21.2	87	74	78
1997	Busoga ..	1932-33	8-9-33	40		..	..	..	..	24	133	0650	8.71	23.23	33.1	27.0	1441	71.2	2927	5	1.5	24.1	80	75	79
2463	Busoga ..	1933-34	29-9-34	26	10	5.3	11.1	0.2	10.3	0	202	0800	5.81	17.08	20.3	111.3	2259	180.4	3963	2	1.8	17.1	86	70	74	
2463	Busoga ..	1933-34	28-8-34	30		..	..	..	..	3	166	0900	0.47	21.80	30.3	05.8	1094	104.0	3119	3	1.5	20.0	86	71	75
2463	Busoga ..	1933-34	29-8-34	40		..	..	..	..	7	144	0900	8.55	23.23	41.1	40.8	1077	75.4	3092	4	4.8	24.0	86	70	72
2463	Busoga ..	1933-34	30-8-34	50		..	..	..	..	2	151	0900	10.15	23.16	40.5	31.0	1534	51.0	2565	5	1.0	20.0	86	73	74
2847	Busoga ..	1934-35	18-9-35	30	10	3.8	11.7	0.4	15.4	17	104	0650	7.70	21.80	30.2	08.4	2660	114.8	3490	3	4.5	21.0	85	71	71	
2847	Busoga ..	1934-35	16-9-35	40		..	..	..	..	5	138	0650	8.09	23.23	30.2	40.4	1810	80.8	3001	4	4.2	24.4	83	80	76
2847	Busoga ..	1934-35	13-9-35	50		..	..	..	..	24	125	0600	10.00	23.10	40.9	32.8	1637	60.5	2934	1	3.8	27.1	83	70	70
3395	Busoga ..	1935-36	9-10-36	30	10	3.8	9.5	0.3	13.2	7	171	10350	7.14	21.80	39.0	71.8	2107	100.4	3352	1	3.5	20.0	87	71	00	
3395	Busoga ..	1935-36	10-10-36	40		..	..	..	..	0	148	10460	7.73	23.23	39.5	50.0	1075	83.2	3408	5	4.2	21.0	88	72	60
3395	Busoga ..	1935-36	14-10-36	50		..	..	..	..	5	136	10350	9.81	23.10	40.3	35.1	1730	60.0	3383	5	1.5	27.1	88	70	63
3674	Busoga ..	1936-37	22-6-37	30	10	4.8	8.2	0.4	13.0	23	180	10200	8.00	20.71	39.3	64.4	1951	103.2	3180	4	2.2	10.8	80	70	78	
3674	Busoga ..	1936-37	24-6-37	40		..	..	..	..	12	134	10300	7.73	23.79	30.0	10.1	1015	83.0	3393	4	2.2	23.0	87	70	78
3674	Busoga ..	1936-37	24-6-37	50		..	..	..	..	13	134	10260	9.81	20.75	50.0	35.1	1765	66.0	3350	5	2.5	25.8	80	73	78
4164	Busoga ..	1937-38	18-6-38	30	10	3.8	10.1	0.4	13.8	3	185	10400	7.71	20.74	30.2	68.0	2054	105.8	3185	3	1.0	10.8	80	71	74	
4164	Busoga ..	1937-38	20-6-38	40		..	..	..	..	12	164	10400	7.71	23.70	30.7	46.3	1888	82.0	3247	3	1.2	23.1	80	71	74
4164	Busoga ..	1937-38	20-6-38	50		..	..	..	..	11	142	10500	0.64	26.76	40.4	34.0	1709	68.0	3380	5	1.2	25.7	88	72	80

for bulk sample areas under full conditions it would be less than shown here

26.—A. R. JINJA COTTON.

These samples have been very kindly supplied by the East India Cotton Association after inspection and approval by their Special Appeal Committee on African Cottons, in accordance with an arrangement made with the Association to supply to the Technical Laboratory, for testing, samples of fair average Cotton of the commercial crop.

Sample No.	Cotton.	Season.
1133	A. R. Jinja (K.I.G.)	1930-31
1500	A. R. Jinja (K.U.M.)	1931-32
1896	A. R. Jinja (A.R.A.)	1932-33
2462	A. R. Jinja (R.N.P.)	1933-34
2846	A. R. Jinja (S.R.I.)	1934-35
3394	A. R. Jinja (S.R.I.)	1935-36
3702	A. R. Jinja	1936-37
4106	A. R. Jinja	1937-38

I.—SPINNING TESTS.

Pre-treatment :—

(a) *Blow-room.*—Upto 1933-34 (inclusive):—Porcupine, Crighton (twice), Hopper, Scutcher (3 times); the 1930-31 sample was passed only once through the Crighton.

1934-35 onwards:—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (twice).

(b) *Card-room.*—Upto 1933-34:—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. I.

1934-35 onwards:—As above, but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles while Ring Frame No. I possesses a band drive arrangement.

Spinning Master's Report :—

(a) *Cotton :—*

JINJA.								
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
..	Creamy-white; bright.	Creamy-white.	White to creamy-white; brightish.	White to creamy-white; bright.	White to creamy-white; bright.	White to creamy-white; brightish.	Creamy-white to white.	White to creamy white.
es ..	Fairly clean.	Fairly clean.	..	Clean.	Fairly clean	Clean.	Very clean.	Clean.
..	Soft and silky.	Good softish.	Soft silky.	Good silky.	Good silky.	Good silky.	Good silky.	Good soft.
and nep-	Too much knotted and nepped.	Somewhat knotted.	Fairly gunned.	A little knotted	A good deal knotted and nepped	Well-ginned.	Well-ginned.	Well-ginned.
..	..	..	..	..	..	..	..	Occasional undeveloped.
er ..	Clean.	Clean.	Silky, soft and clean.	Clean.	Clean.	Clean.	Good; clean.	Fairly clean.
b ..	Too neppy.	A little neppy.	Good.	Cloudy and neppy.	Somewhat neppy	Good.	Good; nep-free.	Fairly free of nep.
of 10 flat	20.9 grams.	18.3 grams.	19.5 grams.	20.2 grams.	19.5 grams.	17.0 grams.	16.1 grams.	15.3 grams.
..

(b) *Yarn :—*

JINJA.								
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
ness ..	Fairly clean.	Clean.	Clean.	Clean.	Fairly clean.	A trifle lacy.	Clean.	Almost clean.
ss ..	Even.	Even.	Very even.	Even.	Even	Fairly even.	Fairly even.	Even.
ess ..	Neppy.	Somewhat neppy.	Practically free of nep.	Fairly neppy.	Neppy.	Neppy.	Fairly free of nep.	Fairly free of nep.
ness ..	..	..	..	..	Occasionally slubby.	..	..	..
ls ..	..	..	..	..	..	..	..	..

*Spinning Test Details and Results :—*See Table 26 on page 78.

II.—REPORT OF THE SPECIAL APPEAL COMMITTEE ON AFRICAN COTTON, A. R. JINJA.

JINJA.

	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Contract valued under	F. G. M. G. Broach No. 2.	F. G. M. G. Broach No. 2, April-May 1933 delivery.	F. G. M. G. Broach No. 2, July-Aug. 1933 delivery.	F. G. M. G. Broach No. 2, July-Aug. 1934.	F. G. M. G. Broach No. 2, April-May 1936 delivery.	F. G. M. G. Broach No. 2, April-May 1937 delivery.	F. G. M. G. Broach No. 2, July-Aug. 1937 delivery.	F. G. M. G. Broach No. 2, July-Aug. 1938 delivery.
Class
Colour
Staple Length
Staple Strength
Regularity
Value above or below contract rate
Basis
Date of Valuation
Remarks *

* The difference between 'Pass' and 'Rejection' standards in 1935-36 is Rs. 7.

Table 26.—SPINNING TEST RESULTS FOR JINJA COTTON.

Sample No.	Cotton.	Season.	WASTE PERCENT (G/S)				Weight of Sample (lbs.)	Counts Normal.	RING FRAME PARTICULARS.*				YARN TEST RESULTS.						TEMPERATURE (°F.)		RELATIVE HUMIDITY (%)				
			Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Lost†			Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per inch.	LEA.			BALANCING.			Twines Class.	Keps per yard.	Turns per inch.	Spinning Room.	Spinning Room.	Testing Room.
														Counts Actual	Strength (lbs.)	Count-Strangth	Counts Actual	Work of Rupture (inches)	Count-Work Product.						
1157	Jinja	1930-31	5.3	11.2	0.3	10.2	0	196	9700	0.07	17.08	10.7	100.3	2153	20.1	185.6	3731	2	0.2	17.0	84	82	88		
1157	Jinja	1930-31	..	..	..	..	7	160	9700	0.80	21.80	23.8	91.3	1892	20.7	105.0	3118	1	7.0	20.7	85	80	70
1153	Jinja	1930-31	..	..	..	..	13	198	9950	0.26	25.28	40.1	30.2	1681	40.4	71.8	3052	5	7.0	24.0	84	80	78
1600	Jinja	1931-32	0.0	9.9	0.1	10.4	02	160	9700	0.07	17.98	19.7	112.4	2214	10.9	192.0	3821	3	5.5	17.0	80	05	68		
1600	Jinja	1931-32	..	..	..	..	11	161	9700	0.54	21.80	29.6	67.5	1998	29.1	119.2	3469	1	6.0	21.6	88	43	49
1600	Jinja	1931-32	..	..	..	..	10	198	9770	8.79	25.28	39.5	43.6	1698	38.1	77.1	2940	5	5.5	21.7	86	02	69
1896	Jinja	1932-33	4.0	0.8	0.1	15.6	83	196	9650	5.80	17.08	10.9	00.3	1797	20.6	175.1	3500	2	1.8	17.3	80	71	78		
1896	Jinja	1932-33	..	..	..	..	3	160	9900	0.38	21.80	20.3	68.1	1097	20.1	114.2	3357	3	2.0	21.1	87	71	77
1896	Jinja	1932-33	..	..	..	..	2	138	9030	8.67	25.28	38.0	40.7	1683	30.1	79.1	3128	4	1.5	24.3	86	75	80
2162	Jinja	1933-34	5.6	13.0	0.2	18.0	0	202	9900	6.05	17.98	20.3	112.7	2298	20.2	100.0	3955	2	5.0	17.2	80	76	70		
2162	Jinja	1933-34	..	..	..	..	0	160	9900	0.51	21.80	29.7	72.4	2160	20.0	115.1	3410	2	4.5	21.3	80	71	77
2162	Jinja	1933-34	..	..	..	..	10	141	9900	8.03	25.28	12.2	12.1	1780	11.7	77.0	3250	1	1.5	24.0	80	70	72
2162	Jinja	1933-34	..	..	..	..	2	131	9900	10.10	28.10	51.3	32.3	1657	50.7	53.2	2997	5	1.7	27.4	80	73	74
2316	Jinja	1934-35	5.0	11.6	0.1	10.3	10	103	9700	7.05	21.86	30.7	67.0	2037	30.6	107.4	3270	2	5.5	20.7	85	00	66		
2910	Jinja	1934-35	..	..	..	..	22	198	9900	7.94	25.28	39.7	47.5	1880	39.6	60.1	3571	4	5.0	24.2	84	80	73
2910	Jinja	1934-35	..	..	..	..	10	124	9900	10.20	28.10	51.5	31.0	1043	50.5	53.0	2970	5	5.2	20.0	81	80	69
3304	Jinja	1935-36	1.1	10.7	0.4	11.0	7	170	10300	7.35	21.80	31.0	70.9	2189	31.1	100.1	3402	1	1.0	21.2	88	72	70		
3304	Jinja	1935-36	..	..	..	..	7	148	10350	7.58	23.28	30.8	40.4	1000	30.3	86.4	3390	4	3.8	24.1	88	72	00
3394	Jinja	1935-36	..	..	..	..	6	138	10400	10.00	28.10	50.0	35.3	1780	50.8	60.1	3373	5	4.2	27.3	87	71	00
3702	Jinja	1936-37	4.2	9.7	0.4	13.9	13	183	10300	7.34	20.74	30.7	74.3	2278	30.0	108.2	3313	4	1.8	19.9	80	78	70		
3702	Jinja	1936-37	..	..	..	..	10	161	10300	7.73	23.70	38.7	53.8	2082	40.0	80.0	3410	5	2.0	23.0	86	77	70
3702	Jinja	1936-37	..	..	..	..	22	143	10390	10.00	20.75	50.4	30.2	1824	52.1	60.4	3478	6	1.2	25.0	86	70	79
4100	Jinja	1937-38	0.3	16.2	0.4	10.0	0	210	10400	0.31	17.93	20.2	118.8	2400	20.1	202.0	1133	2	1.2	17.5	88	71	77		
4106	Jinja	1937-38	..	..	..	..	20	183	10400	0.31	20.74	30.2	70.7	2156	29.0	111.8	3398	3	1.0	20.2	87	71	82
4100	Jinja	1937-39	..	..	..	..	7	102	10400	8.30	23.70	30.7	47.3	1878	30.4	82.0	3254	1	1.5	23.3	85	71	78
4106	Jinja	1937-38	..	..	..	..	8	145	10500	10.55	20.75	40.9	33.0	1077	50.0	65.0	3310	0	1.0	25.1	87	74	70

* Diameter of ring frame front roller—1½". Diameter of rings—1½". † It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

1.—FARM WESTERNS COTTON.

These samples have been tested by arrangement with the 'Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of the first arrivals of the new crop.

Sample No.	Cotton.	Place.	Season.
1776	Farm Westerns	Bellary	1932-33
2374	Farm Westerns	Bellary	1933-34
2748	Farm Westerns	Adoni	1934-35
3150	Farm Westerns	Adoni	1935-36
3507	Farm Westerns	Adoni	1936-37
3966	Farm Westerns	Adoni	1937-38

I. SPINNING TESTS.

Pre-treatment :—

- (a) *Blow-room*.—Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).
1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once),

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ON

COTTONS SUPPLIED BY THE BOMBAY MILLOWNERS' ASSOCIATION.

These samples are the first arrivals of the new crop of each season. In view of the fact that sometimes a mill using a particular style of cotton in one season does not use the same style in the following season, a certain amount of discontinuity has occurred in some of the varieties. However, so far as possible, efforts have been made to obtain, in each season, samples of the same varieties so that the results of tests in the successive seasons may be comparable. As regards the valuation of these samples, this was kindly done by the Grader (Major Ellis Jones) upto 1931-32, but in the following seasons the mills supplying these samples were requested to furnish their own valuation reports.

10	17.6 grams.	21.5 grams.	17.8 grams.	13.8 grams.	14.0 grams.	15.1 grams.
..

(b) *Yarn* :—

FARM WESTERNS.						
	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
ness	Clean.	Leafy.	Clean.	Almost clean.	Leafy.	A little leafy.
ness	Fairly even.	Fairly uneven.	Even.	Fairly even.	Fairly even.	Fairly even.
ness	A little neppy.	A little neppy.	Almost free of nep.	Practically free of nep.	Fairly free of nep.	Fairly free of nep.
ness	..	..	..	..	..	..

Spinning Test Details and Results :—See Table 1 on page 81.

II.—GRADER'S REPORT* FOR FARM WESTERNS COTTON.

FARM WESTERNS.

		1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
		Hedge Contract No. 5	Broach.	July/Aug. Broach.	Broach April/May.	Broach April/May.	F. G. M. G. Broach No. II.
Contract valued under	..	Good M. G.	Fine.	Fine.	Fine.	Fine.	Fine.
Class ..	..	White.	Light brown.	White brownish.	Brownish white.	White.	Brownish white.
Colour ..	..	7/8 inch.	29/32 inch.	13/10 inch.	7/8 inch.	29/32 inch.	13/10 inch.
Staple Length	..	Moderate.	Good.	Good.	Fair.	Good.	Good.
Staple Strength	..	Slightly irregular.	Good.	Regular.	Slightly irregular.	Fair.	Regular.
Regularity ..	..	Rs. 20 on.	Rs. 25 on.	Rs. 40 on.	Rs. 30 on.	Rs. 20 on.	Rs. 25 on.
Value above or below contract rate ..	..	F. G. Broach April/May 1933.	Rs. 203 July/August Broach.	Rs. 232.	Rs. 203.	Rs. 221.	Rs. 180.
Basis ..	..	15-5-33.	9-7-31.	3-7-35.	20-4-36.	10-2-37.	2-3-38.
Date of Valuation ..	..	Inferior in staple to last year's crop.	..	..	..	..	..
Remarks ..	..					

* Reports since 1932-33, except that of 1934-35, are compiled by the mill supplying the sample.

Table 1.—SPINNING TEST RESULTS FOR FARM WESTERNS COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample, (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.						TEMPERATURES (°F.).	RELATIVE HUMIDITY (%).					
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per Inch.	LEA.			RAMMING.			Evenness Class.	Neps per yard.	Turns per Inch Actual.	Spinning Room.	Testing Room.	
															Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Rupture (Inch-lb.)							Count-Work Product.
1776	Farm Westerns.	1932-33	18-5-33	20	10	11.2	10.0	0.0	20.6	02	100	0,030	5.41	17.08	10.8	73.5	1,435	20.1	110.0	2,233	4	2.2	17.1	89	08	70
1770	Farm Westerns.	1932-33	19-5-33	24		..	..	..	..	82	174	0,400	0.32	19.73	23.7	51.5	1,292	23.9	05.4	2,280	4	2.8	18.9	87	00	08
2374	Farm Westerns.	1933-34	10-7-34	20	10	15.0	11.9	0.6	25.6	26	100	0,600	0.07	17.08	10.0	60.1	1,681	10.7	117.8	2,321	4	1.5	17.0	87	72	76
2374	Farm Westerns.	1933-34	11-7-34	24		..	..	..	..	50	170	0,150	5.45	19.73	23.2	58.8	1,304	21.5	90.0	2,250	5	1.5	10.0	87	74	78
2374	Farm Westerns.	1933-34	10-7-34	30		..	..	..	..	50	151	0,600	0.71	23.11	30.0	40.4	1,212	20.5	78.1	2,313	0	2.0	22.2	86	81	80
2748	Farm Westerns.	1934-35	19-6-35	20	10	11.2	0.0	0.5	20.2	21	107	0,050	5.03	17.03	10.7	87.0	1,712	10.8	111.8	2,808	3	1.5	17.3	80	73	80
2748	Farm Westerns.	1934-35	19-6-35	24		..	..	..	..	45	180	0,000	5.32	10.73	23.0	68.1	1,607	23.7	114.4	2,711	4	1.5	10.1	80	73	79
2748	Farm Westerns.	1934-35	20-6-35	30		..	..	..	..	36	156	0,500	0.71	23.11	20.3	52.4	1,535	20.7	92.4	2,744	5	1.2	22.4	85	75	77
3150	Farm Westerns.	1935-36	21-4-36	30	10	9.1	8.2	0.0	10.0	42	105	0,000	5.05	17.03	20.2	65.7	1,327	10.0	120.1	2,477	4	0.8	17.4	98	07	70
3150	Farm Westerns.	1935-36	22-4-36	24		..	..	..	..	73	170	0,600	5.64	10.73	21.0	44.8	1,110	21.5	104.0	2,548	4	0.8	19.4	88	66	72
3150	Farm Westerns.	1935-36	21-4-36	30		..	..	..	..	66	140	8,750	0.70	23.20	30.5	30.8	1,214	30.0	78.1	2,352	5	1.0	22.1	80	08	70
3507	Farm Westerns.	1936-37	25-2-37	20	10	10.2	8.5	0.4	18.2	10	100	0,350	5.03	17.03	10.7	81.0	1,673	10.7	121.0	2,455	4	1.8	17.2	83	00	08
3507	Farm Westerns.	1936-37	25-2-37	24		..	..	..	..	45	170	0,200	5.30	10.73	21.3	01.0	1,407	21.4	101.8	2,484	5	1.8	10.0	84	08	08
3507	Farm Westerns.	1936-37	26-2-37	30		..	..	..	..	17	148	0,350	0.67	23.25	30.1	48.1	1,148	20.7	82.2	2,411	0	1.5	22.1	83	08	09
3980	Farm Westerns.	1937-38	11-3-38	20	10	10.0	9.1	0.5	18.0	10	104	0,450	5.81	17.03	20.3	72.1	1,470	20.0	118.1	2,308	4	1.2	17.3	85	08	08
3986	Farm Westerns.	1937-38	11-3-38	24		..	..	..	..	14	181	0,550	5.20	10.73	23.3	59.2	1,370	23.1	102.4	2,300	4	1.5	18.0	80	07	69
3986	Farm Westerns.	1937-38	12-3-38	30		..	..	..	..	40	155	0,600	0.83	23.11	30.1	12.1	1,280	30.7	80.0	2,471	5	1.2	22.1	85	08	68

* Diameter of ring frame front roller: $\frac{3}{8}$ ". Diameter of rings: $1\frac{1}{2}$ ".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

2.—BAILHONGAL COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.	Weight (lbs.)
1042	Bailhongal	1930-31	12
1315	"	1931-32	12
1775	"	1932-33	11
2371	"	1933-34	11
2743	Bailhongal Compta	1934-35	11
3147	Bailhongal	1935-36	11
3550	"	1936-37	11
4010	Bailhongal Compta	1937-38	12½

I.—SPINNING TESTS.

Treatment :—

(a) *Blow-room*.—Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1, possesses a band drive arrangement.

Spinning Master's Report :—

(a) *Cotton* :—

		BAILHONGAL.							
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
..	..	Creamy-white.	Dull white ..	Dullish creamy-white.	Creamy-white.	White to creamy-white.	White to creamy-white.	Creamy-white.	White to creamy-white.
ess ..	..	Fairly leafy ..	Leafy ; almost free of stains.	Leafy-very fine leaf.	Very leafy ..	Leafy (very fine leaf).	Leafy ..	Leafy ..	Leafy.
..	..	Good ..	Soft ..	Good ..	Good ..	Good ..	Good ..	Fair ..	Fair.
and nep-	..	Well-ginned ..	Well-ginned ..	Well-ginned ..	Slightly knotted	Well-ginned ..	Well-ginned ..	Well-ginned ..	..
..	..	1% ginned and partly ginned.	..	..	..	Contains too many un-ginned seeds.	..	..	Contains some ginned and cut seeds.
iver..	..	Clean ..	A little pin trash present.	A trifle leafy ..	Fairly leafy ..	Clean ..	Clean ..	Good ..	Clean.
Feb ..	..	Very good ..	Even and nep-free.	Even and nep-free.	Good ..	Even and nep-free.	Good ..	Good ..	Good, nep-free.
of ten flat	..	11.2 grams ..	15.0 grams ; dirty.	15.2 grams ..	19.5 grams ..	15.6 grams ..	12.8 grams ..	13.2 grams ..	12.8 grams.
ss ..	..	Fully pressed ..	Fine strong staple.	Contains much very short fibre.	..	..	..	..	..

(b) *Yarn* :—

		BAILHONGAL.							
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
ness ..	..	Clean ..	A trifle leafy ..	Clean ..	Almost clean ..	Almost clean ..	Clean ..	Almost clean ..	Clean.
ess ..	..	Fairly even ..	Even ..	Fairly even ..	Even in the two lower counts.	Fairly even ..	Even ..	Even ..	Even.
ness ..	..	A little neppy.	Fairly free of nep.	Free of nep ..	Free of nep ..	Practically free of nep.	Almost nep-free	Fairly free of nep.	Fairly free of nep.
ness ..	..	..	..	..	Slubby ..	..	..	..	..
rika ..	..	..	..	..	..	..	..	..	..

Spinning Test Details and Results.—See Table 2 on page 84.

II.—GRADER'S REPORT* FOR BAILHONGAL COTTON.

BAILHONGAL.

	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Contract valued under	Broach ..	Broach/Kumptn ..	Hedge Contract No. 5 Southern.	Broach ..	July/Aug. Broach.	Broach April/May.	Broach April/May	Broach April/May.
Class	Fully Good	Fully Good	Good M. G.	Fully Good	Fully good to fine	Fully good to fine.	Fully good to fine	Barely fine.
Colour	Reddish	Reddish Line	Brownish ..	Brownish ..	Brownish white	Brownish white	Brownish white	Brownish white.
Staple Length	7/8"	31/32"	7/8"	13/16"	3/4"	13/16"	7/8"	7/8"
Staple Strength	Fair	Good	Moderate ..	Fair	Fair	Good	Good	Good.
Regularity	Fair	Fair	Regular ..	Fair	Somewhat irregular	Fair	Good	Good.
Value above or below contract rate	Rs. 35 on ..	Rs. 30 on ..	Rs. 25 on ..	Rs. 15 on ..	Rs. 30 on ..	Rs. 30 on ..	Rs. 30 on ..	Rs. 35 on.
Basis	Rs. 180	Rs. 170	F. G. Broach April/ May 1933.	Broach July/Aug. Rs. 203.	Rs. 232	Rs. 203	Rs. 247	Rs. 164.
Date of Valuation	11-5-31	5-5-32	15-5-33	9-7-34	3-7-35	20-4-36	23-3-37	25-3-38.
Remarks			Inferior in staple to last year's crop.					

* Reports for 1932-33, 1933-34 and 1935-36 onwards were made by the mill supplying the sample.

Table 2.—SPINNING TEST RESULTS FOR BAILHONGAL COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Normal.	Weight of Sample (lbs.)	WASTE PERCENTAGE.				RING FRAME PARTICULARS *				YARN TEST RESULTS.						TEMPERATURE (°F).	RELATIVE HUMIDITY (%).					
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per Inch.	I.E.L.			BALDWIN.								
															Count Actual.	Strength (lbs)	Count-Work Product.	Counts Actual.	Work of Rupture (inch-lb.).				Count-Work Product.	Levelling Class.	Keps per yard.	Turns per Inch. Actual.	Spinning Room.	Spinning Room.	Testing Room.
1042	Bailhongal.	1930-31	4-5-31	20	10	12.2	8.2	0.3	16.7	0	188	9,450	0.25	17.03	10.8	74.0	1483	114.4	2295	3	2.2	17.3	80	70	70	
1042	Bailhongal.	1930-31	4-5-31	24		..	..	..	..	4	177	9,600	5.05	19.73	23.1	61.0	1427	95.0	2227	4	1.5	10.0	01	05	70
1042	Bailhongal.	1930-31	8-5-31	30B		..	..	..	..	53	157	9,000	7.58	23.11	20.2	44.0	1233	70.8	2231	5	2.0	22.1	91	07	68
1315	Bailhongal.	1931-32	29-4-32	20	10	13.3	6.2	0.7	21.8	78	194	9,650	5.45	17.08	20.2	67.4	1301	104.4	2151	3	1.8	17.5	90	00	60	
1315	Bailhongal.	1931-32	29-4-32	24		..	..	..	..	109	173	9,450	0.54	16.73	24.0	45.8	1127	87.8	2100	4	2.2	10.0	90	02	68
1315	Bailhongal.	1931-32	30-4-32	30B		..	..	..	..	70	151	9,600	0.70	23.11	23.9	44.3	1250	80.0	2320	5	2.5	22.2	80	00	70
1775	Bailhongal.	1932-33	18-5-33	20	10	15.6	10.2	0.0	24.7	119	160	9,650	5.21	17.08	20.0	61.3	1323	107.6	2217	4	0.8	17.2	88	03	70	
1775	Bailhongal.	1932-33	18-5-33	24		..	..	..	..	91	171	9,400	0.92	16.73	23.8	51.2	1219	92.0	2107	4	1.0	18.0	87	00	68
2371	Bailhongal.	1933-34	9-7-34	20	10	13.8	11.2	0.4	23.8	30	200	9,800	0.10	17.03	20.0	73.2	1491	110.8	2210	3	0.8	17.5	86	70	75	
2371	Bailhongal.	1933-34	10-7-34	24		..	..	..	..	36	170	9,000	5.47	19.73	23.1	94.1	1481	98.0	2337	4	1.0	10.3	87	74	78
2371	Bailhongal.	1933-34	10-7-34	30B		..	..	..	..	102	164	9,000	0.70	23.11	30.0	43.2	1322	78.8	2349	5	0.8	22.2	86	81	80
2743	Bailhongal.	1934-35	10-6-35	20	10	12.8	8.7	0.3	20.7	10	184	9,500	5.81	17.08	20.0	93.8	1870	135.8	2730	4	0.8	17.4	90	00	73	
2743	Bailhongal.	1934-35	1-6-35	24		..	..	..	..	27	165	8,750	5.43	19.73	23.0	76.7	1810	117.0	2740	4	1.0	10.0	90	00	77
2743	Bailhongal.	1934-35	12-6-35	30B		..	..	..	..	13	152	9,650	0.70	23.11	28.0	61.9	1707	98.4	2804	5	0.8	22.0	90	08	82
3147	Bailhongal.	1935-36	17-4-36	20	10	10.9	7.1	0.4	17.0	47	102	9,450	5.05	17.08	20.2	60.5	1343	110.4	2328	3	1.0	17.1	80	07	70	
3147	Bailhongal.	1935-36	20-4-36	24		..	..	..	..	14	173	9,500	0.41	19.73	23.5	60.8	1109	90.0	2335	4	1.2	18.7	89	03	72
3559	Bailhongal.	1936-37	0-4-37	20	10	13.2	8.6	0.6	21.2	10	100	9,400	0.13	17.03	20.2	83.7	1091	123.8	2470	3	1.2	17.1	85	07	68	
3559	Bailhongal.	1936-37	0-4-37	24		..	..	..	..	23	171	9,350	5.21	19.73	23.3	71.0	1054	107.0	2480	4	1.0	18.8	80	05	68
3559	Bailhongal.	1936-37	5-4-37	30A		..	..	..	..	30	159	9,500	0.28	21.80	20.1	40.2	1440	85.0	2550	5	1.0	20.4	85	07	68
4010	Bailhongal.	1937-38	13-4-38	20	10	12.4	7.0	0.5	19.4	5	214	11,300	5.03	17.08	20.3	78.1	1535	122.4	2485	3	0.8	17.2	88	09	70	
4010	Bailhongal.	1937-38	14-4-38	24		..	..	..	..	18	189	9,600	5.41	19.73	23.8	63.1	1640	105.2	2514	3	1.0	18.0	80	08	70
4010	Bailhongal.	1937-38	14-4-38	30A		..	..	..	..	30	168	10,000	0.70	21.80	30.4	42.9	1301	80.8	2448	4	1.2	21.4	88	08	63

* Diameter of ring frame front roller—1". Diameter of ring—14".
† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

3.—BROACH COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of the first arrivals* of the new crop.

Sample No.	Cotton.	Season.
1007	Broach (Salar)	1930-31
1314	" (Salar)	1931-32
1707	" (Sadhli)	1932-33
2372	" (Sadhli)	1933-34
2744	" (Broach)	1934-35
3148	" (Jambusar)	1935-36
3508	" (Palej)	1936-37
3965	" (Palej)	1937-38

The mill supplying the sample explains that Sadhli is a station in the Broach District and Salar is merely the type name given by a seller to Sadhli or similar cotton.

5-36 sample does not represent the early arrivals of Broach but represents the average quality of the Broach cotton.

I.—SPINNING TESTS.

Treatment :—

Blow-room.—Up to 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

Card-room.—Up to 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

Spinning Master's Report.

Cotton :—

	Broach.							
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
.. ..	White to creamy-white.	Creamy-white.	White; bright	White to creamy-white; bright.	White to creamy-white; bright.	White; bright.	White.	White; bright.
.. ..	Very bright, clean.	Clean, almost free of leaf.	Almost clean ..	Fairly clean ..	Fairly clean.	Fairly clean.	Fairly clean; a trifle stained.	Fairly clean; an occasional stain.
.. ..	Good silky ..	Fairly good ..	Good-bodied ..	Good ..	Good smooth.	Smooth-bodied	Good soft ..	Fair.
1 Neppiness	Well-ginned	Well-ginned ..	Well-ginned ..	Well-ginned ..	Well-ginned ..	Well-ginned ..	Well-ginned ..	Well-ginned.
..
.. ..	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
.. ..	First class ..	Even and nepp-free.	Even and nepp-free.	Good	Good	Even and nepp-free.	Free of neps ..	Almost free of neps.
0 flatstrips.	12.6 grams	16.2 grams	15.2 grams ..	17.5 grams ..	21.0 grams ..	17.5 grams ..	15.8 grams ..	15.4 grams.
.. ..	Fully pressed.	Medium fine staple, regular and fairly strong.	..	..	..	..	..	..

Yarn :—

	Broach.							
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
.. ..	Clean	Clean	Clean	Clean	Clean	A little leafy ..	A little leafy ..	Clean.
.. ..	Fairly even ..	Fairly even ..	Fairly even ..	Fairly even ..	Somewhat uneven.	Fairly even ..	Fairly even ..	Even.
.. ..	Free of nep ..	Almost free of nep.	Free of nep ..	Free of nep ..	A trifle neppy.	Free of nep ..	Almost free of nep.	Free of neps.
.. ..	..	..	Shows an occasional slub.	..	Slightly slubby.	..	..	A little slubby.
..

Spinning Test Details and Results.—See Table 3 on page 87.

II.—GRADER'S REPORT* FOR BROACH COTTON.

		BROACH.									
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.		
Contract valued under	F. G. M. G. Broach No. II.	..
Class	Extra superfine.	..
Colour	White.	..
Staple Length	21/32".	..
Staple Strength	Moderate.	..
Regularity	Regular.	..
Value above or below contract rate	Rs. 5 on.	..
Basis	Rs. 180.	..
Date of Valuation	10-2-37.	..
Remarks

* Reports since 1932-33, except for 1934-35, were made by the mill supplying the sample.

Table 3.—SPINNING TEST RESULTS FOR BROACH COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Sample No.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.						TENDER-ATONE (°F.).	RELATIVE HUMIDITY (%).					
					Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss†	Yarn Breaks per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per Inch.	LEA.		BALISTIC.		Evenness Class.			Neps per yard.	Turns per Inch. Actual.	Spinning Room.	Testing Room.	
														Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.								Work (Inch-lb.)	Count-Work Product.
1007	1930-31	17-3-31	10A	10	7.0	9.7	0.0	15.5	7	184	8000	5.75	15.07	10.0	56.0	970	10.0	121.2	2012	3	1.2	15.5	81	07	00
1007	1930-31	17-3-31	20		..	..	..	..	50	180	10000	0.25	20.23	20.1	33.1	1163	20.5	101.1	2140	1	1.7	10.0	82	06	09
1314	1931-32	20-4-32	12	10	5.3	8.9	0.5	14.2	7	203	8000	4.30	13.02	12.0	63.3	1144	12.2	207.2	2529	4	1.5	13.4	89	03	72
1314	1931-32	28-4-32	10A		..	..	..	..	88	181	9100	5.00	15.07	16.1	57.9	932	10.2	130.6	2110	5	1.8	15.3	90	03	00
1314	1931-32	20-4-32	10B		..	..	..	..	62	190	9000	5.00	10.07	10.0	60.8	1117	15.3	151.4	2362	1	1.5	10.4	01	07	09
1707	1932-33	22-3-33	12	10	8.1	0.0	0.5	17.1	30	201	7000	5.25	13.02	12.4	80.7	900	12.4	103.2	2306	4	0.5	13.4	81	70	70
1707	1932-33	22-3-33	10A		..	..	..	..	121	175	7700	5.51	15.07	10.3	52.1	819	10.0	116.1	2342	5	0.5	15.5	83	71	71
1707	1932-33	22-3-33	10B		..	..	..	..	133	190	8700	5.53	10.07	10.1	61.0	1001	10.1	118.0	2383	5	0.5	10.4	80	70	70
2372	1933-34	7-7-34	14A	10	0.9	0.7	0.4	16.2	51	200	8200	5.57	11.03	11.1	85.6	1207	14.2	170.6	2532	4	0.5	14.6	87	71	78
2372	1933-34	9-7-34	10A		..	..	..	..	49	183	8200	6.37	15.07	10.2	67.3	1090	10.4	137.1	2253	1	0.8	15.5	85	78	78
2372	1933-34	9-7-34	10B		..	..	..	..	36	193	8350	5.57	10.07	10.2	78.0	1273	10.5	139.8	2707	4	0.8	10.3	86	78	78
2744	1934-35	12-6-35	14A	10	7.2	10.8	0.4	17.5	26	189	7000	5.55	14.09	11.2	76.8	1091	13.0	187.6	2608	4	1.8	11.7	90	03	76
2744	1934-35	13-6-35	10A		..	..	..	..	55	177	7000	6.13	15.07	10.0	70.0	1120	15.7	101.8	2510	5	2.0	15.1	91	07	82
2744	1934-35	13-6-35	10B		..	..	..	..	12	180	8200	5.51	10.07	15.7	83.0	1303	15.7	105.2	2501	5	1.5	10.4	00	03	82
3143	1935-36	24-4-36	10	10	6.0	9.8	0.1	10.3	9	163	9050	5.50	12.07	10.5	85.7	900	10.2	238.8	2430	1	0.5	12.1	89	06	70
3148	1935-36	23-4-36	14A		..	..	..	..	87	180	7450	5.43	11.03	11.2	55.1	782	14.1	181.0	2561	1	0.5	11.2	89	07	70
3148	1935-36	24-4-36	14B		..	..	..	..	48	200	8800	5.13	15.07	11.0	73.0	1083	14.3	175.2	2505	1	0.8	15.4	80	06	68
3508	1936-37	2-3-37	12	10	5.0	9.0	0.3	14.6	7	206	7800	1.22	13.02	12.1	100.9	1293	11.8	241.8	2853	3	0.8	13.5	83	07	03
3508	1936-37	26-2-37	14A		..	..	..	..	15	190	7700	5.55	14.03	13.0	89.2	1210	13.0	107.3	2600	4	0.8	14.7	83	07	68
3508	1936-37	26-2-37	10A		..	..	..	..	18	174	7700	5.71	15.07	10.3	61.2	1010	10.1	130.8	2293	1	1.0	15.2	94	08	07
3508	1936-37	27-2-37	10B		..	..	..	..	42	170	8000	5.01	10.07	10.1	73.0	1270	10.3	153.2	2407	1	1.2	10.3	84	07	07
3965	1937-38	10-3-38	12	10	6.7	9.0	0.4	15.5	22	200	7000	6.37	13.02	11.7	80.9	1017	12.0	202.0	2421	3	0.8	13.5	85	08	06
3965	1937-38	11-3-38	14A		..	..	..	..	80	101	7050	5.21	14.09	11.6	56.7	823	14.3	150.4	2451	3	0.8	14.0	85	07	08
3965	1937-38	10-3-38	11B		..	..	..	..	44	193	8500	5.37	15.07	11.8	60.8	1037	11.8	153.2	2207	1	1.0	15.5	85	06	06

* Diameter of ring frame front roller— $\frac{1}{2}$ ". Diameter of ring— $1\frac{1}{2}$ ".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

4.—KARUNGANNI COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.
1063	Karunganni	1930-31
2413	Karunganni	1933-34
2746	Karunganni (Cambodia Dt.)	1934-35
3271	Karunganni	1935-36
4022	Karunganni	1937-38

I.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 :—Card, Drawing (2 heads), Slabber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	KARUNGANNI.				
	1930-31.	1933-34.	1934-35.	1935-36.	1937-38.
Colour	Creamy-white ; fairly bright.	White to creamy-white ; bright.	White ; bright.	White to creamy-white ; brightish.	White to creamy white.
Cleanliness	Fairly clean.	Fairly clean.	Fairly clean.	A little leafy.	A little leafy.
Feel	Full-bodied.	Good smooth.	Good silky.	Good smooth.	Good.
Ginning and neppiness	A fair amount of knot and nep.	Well-ginned.	Well-ginned.	A little knotted.	..
Seeds	Some cut seed.	..	Few crushed seeds.	..	Contains a few cut seeds.
Card sliver	Almost clean.	Fairly clean.	Clean ; soft.	Almost clean.	Good.
Card web	Somewhat neppy and cloudy.	..	A little neppy.	A trifle neppy.	Good.
Weight of 10 flat strips	16.4 grams.	23.0 grams.	26.0 grams.	18.0 grams.	23.2 grams.
Remarks	Fully-preserved.	..	..	..	..

(b) Yarn :—

	KARUNGANNI.				
	1930-31.	1933-34.	1934-35.	1935-36.	1937-38.
Cleanliness	Fairly clean.	Almost clean.	Clean.	Little leafy.	A little leafy.
Evenness	Fairly even.	Fairly even.	Even.	Fairly even.	Fairly even.
Neppiness	Somewhat neppy.	A little neppy.	Neppy.	Somewhat neppy.	A little neppy.
Slabiness .. .. .	..	A little slubby.	..	Occasionally slubby.	..
Remarks .. .. .	..	..	..	..	..

3. Spinning Test Details and Results :—See Table 4 on page 90.

II.—GRADER'S REPORT* FOR KARUNGANNI COTTON.

		1930-31.	1933-34.	1934-35.	1935-36.	1937-38.
Contract valued under	.. ..	Broach.	Broach.	July/August Broach.	Broach July/August.	Broach April/May.
Class	.. ..	Fine.	Fine.	Superfino.	Fine.	Fine.
Colour	.. ..	White.	White.	Bright white.	White	Creamy-white.
Staple Length	.. ..	$\frac{5}{8}$ —1 inch.	15/16 inch.	7/8 inch.	13, 16 inch.	29/32 inch.
Staple Strength	.. ..	Irregular.	Good.	Fair.	Fair.	Fair.
Regularity	.. ..	Very irregular.	Good.	Slightly irregular.	Slightly irregular.	Irregular.
Value above or below contract rate	.. ..	Rs. 50 on.	Rs. 55 on Broach.	Rs. 55 on.	Rs. 30 on.	Rs. 40 on.
Basis	.. ..	Rs. 175.	Rs. 203 July/Aug. Broach.	Rs. 232.	Rs. 220.	Rs. 157.
Date of Valuation	.. ..	30-5-31.	9-7-34.	3-7-35.	1-7-36.	7-4-38.
Remarks	.. ..	Valued on name only.	.. ..	Somewhat soft.	.. ..	.. ..

* Grader's Report for 1933-34 and 1935-36 onwards is compiled by the mill supplying the sample.

Table 4.—SPINNING TEST RESULTS FOR KARUNGANNI COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample, (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS						TEMPERATURE ACTUAL (° F.)	RELATIVE HUMIDITY (%)				
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Packages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per inch.	Tensile.			HALLISTON.							
															Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Worked Repairs (inch-lbs.)			Count-Work Product.	Yarns per yard.	Turns per inch, Actual.	
1003	Karunganni.	1030-31	23-5-31	20	10	7.3	9.2	0.6	10.2	36	187	9100	6.38	17.09	60.1	10.8	1100	19.0	110.8	2205	1	5.2	17.2	90	08
1003	Karunganni.	1030-31	26-5-31	24		..	..	..	..	44	171	9375	0.38	10.73	50.8	23.1	1173	23.7	04.8	2217	5	5.5	10.0	90	08
2113	Karunganni.	1032-34	1-6-34	20	10	0.0	11.7	0.4	18.1	42	186	9000	0.10	17.09	67.2	20.1	1951	20.2	116.0	2355	4	2.2	16.7	83	81
2113	Karunganni.	1032-34	1-6-34	24		..	..	..	..	77	168	9060	0.41	10.73	72.1	27.7	1212	23.5	100.2	2355	1	2.5	18.6	82	82
2710	Karunganni.	1034-35	17-6-35	20	10	7.8	13.0	0.3	20.0	16	104	9500	0.07	17.08	80.0	20.0	1720	10.9	130.5	2782	1	1.9	17.5	88	06
2710	Karunganni.	1034-35	17-6-35	21		..	..	..	..	23	176	9500	0.07	10.73	71.6	22.0	1663	21.0	119.1	2716	1	7.5	10.1	90	07
3271	Karunganni.	1035-36	13-7-36	20	10	8.8	9.6	0.3	17.7	0	103	9700	5.08	17.08	71.1	20.2	1503	19.7	127.1	2510	1	1.0	17.4	87	70
3271	Karunganni.	1035-36	16-7-36	24		..	..	..	..	18	171	9700	5.70	10.73	57.0	24.1	1388	21.1	101.0	2500	4	3.8	10.1	88	73
3271	Karunganni.	1035-36	16-7-36	50		..	..	..	..	26	155	9500	0.07	21.80	12.0	20.7	1217	20.0	85.0	2512	5	3.2	21.1	89	73
4022	Karunganni.	1037-38	25-4-38	10	10	0.8	12.5	0.4	18.7	12	218	9300	5.65	15.97	91.1	15.7	1430	10.1	107.0	2008	3	2.8	15.8	89	08
4022	Karunganni.	1037-38	25-4-38	20A		..	..	..	..	16	192	9280	5.03	17.04	60.1	10.7	1308	10.8	125.0	2175	1	2.2	17.3	91	09
4022	Karunganni.	1037-38	26-4-38	20B		..	..	..	..	0	201	10350	0.05	10.20	78.7	10.5	1535	10.8	131.0	2501	1	2.2	18.7	91	08

* Diameter of ring frame front roller— $\frac{1}{8}$ ". Diameter of ring— $\frac{1}{16}$ ".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

5.—NANDYAL COTTON.

These samples have been tested by arrangement with the Mill-owners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.	Weight (lbs).
1069	Nandyal	1930-31	11
2751	„ (Northern Cambodia).	1934-35	10

1.—SPINNING TESTS.

- Treatment.*—The 1930-31 sample was passed through the Porcupine, Crighton (twice), Hopper, Scutcher (3 times), Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1. The 1934-35 sample was passed through the Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times) in the blow-room and was spun on Ring Frame No. 3, which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement; otherwise its treatment was the same as for the cotton of the other season.

2. *Spinning Master's Report :—*

(a) *Cotton :—*

	NANDYAL.	
	1930-31.	1934-35.
Colour	Creamy-white.	White to creamy-white.
Cleanliness	Leafy (very fine leaf).	Slightly stained ; leafy.
Feel	Good ; soft.	Good.
Ginning and Noppiness	Well-ginned ; a little nappy.	Well-ginned.
Seeds .. .. .	..	..
Card Sliver	Clean.	Clean ; soft.
Card Web	Trifle nappy.	Slightly nappy.
Weight of ten flat strips	15.8 grams.	25.8 grams.
Remarks	Staple regular in length and of good strength.	..

(a) *Yarn :—*

	NANDYAL.	
	1930-31.	1934-35.
Cleanliness	Clean.	Clean.
Evenness	Fairly even.	Fairly even.
Noppiness	A little too nappy.	A little nappy (fine naps).
Slubbiness .. .. .	..	A trifle slubby.

3. *Spinning Test Details and Results :—*See Table 5 on page 92.

II.—GRADER'S REPORT* FOR NANDYAL COTTON.

NANDYAL.														
1030-31.										1031-35.				
Contract valued under	..	..	..	..	..	..	..	..	..	Breach July/August.	..	..	..	..
Class	..	..	..	..	..	..	..	..	..	Fine.	..	..	..	..
Colour	..	..	..	..	..	..	..	..	..	Creamy.	..	..	..	..
Staple Length	..	..	..	..	..	..	..	..	..	7/8 inch.	..	..	..	..
Staple Strength	..	..	..	..	..	..	..	..	..	Good.	..	..	..	..
Regularity	..	..	..	..	..	..	..	..	..	Fairly regular.	..	..	..	..
Value above or below contract rate	..	..	..	..	..	..	..	..	..	Rs. 80 on.	..	..	..	..
Brals	..	..	..	..	..	..	..	..	..	Breach July/August.	..	..	..	..
Date of Valuation	..	..	..	..	..	..	..	..	..	25-5-35.	..	..	..	..
Remarks	..	..	..	..	..	..	..	..	..	..	..	..	..	..

*Report for 1031-35 is supplied by the mill supplying the sample.

Table 5.—SPINNING TEST RESULTS FOR NANDYAL COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Normal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RISO DRAPE PARTICULARS.*						YARN TEST RESULTS.										TEMPERATURE (°C.)	RELATIVE HUMIDITY (%)
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss†	Yarn Breakages per 100 spindles	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per inch.	MIL.			BUILDING.			Reynolds Class.	Steps per inch.	Turns per inch.	Spinning Room.	Testing Room.		
															Counts Actual	Strength (lbs)	Count-Strength Product.	Counts Actual	Work of Machine (inches)	Count-Work Product.							
1000	Nandyal ..	1030-31	4-6-31	21	10	10.5	0.2	0.6	0.1	18	180	0,850	7.11	10.73	21.1	65.7	1,583	21.5	110.8	2,715	4	5.5	10.0	07	60		
1000	Nandyal ..	1030-31	4-6-31	30	..	..	..	..	..	72	150	0,500	7.29	21.80	31.0	42.3	1,311	31.0	83.4	2,000	5	5.0	21.1	08	08
1000	Nandyal ..	1030-31	4-6-31	31	..	..	..	..	..	40	142	0,000	7.81	23.20	32.9	42.7	1,105	32.8	80.0	2,704	5½	5.7	22.5	08	07
2731	Nandyal ..	1031-35	21-6-35	20	10	8.9	12.0	0.5	21.0	5	180	8,800	5.08	17.08	10.0	70.3	1,390	20.0	118.6	2,372	1	2.5	16.0	84	74		
2731	Nandyal ..	1031-35	22-6-35	21 A	..	..	..	..	..	27	160	8,050	0.13	10.73	23.7	52.1	1,235	23.8	100.0	2,304	4	2.2	16.0	88	71
2731	Nandyal ..	1031-35	22-6-35	21 B	..	..	..	..	..	50	180	10,500	0.25	20.71	23.8	58.5	1,392	23.8	101.8	2,423	5	2.5	10.5	88	72

*Diameter of ring frame front roller—1½". Diameter of ring—1½".
 small sample weighing 10 lbs.; for bulk sample spun under mill conditions, it would be less than shown here.

6.—NORTHERN CAMBODIA COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.
1064	Northern Cambodia (Kurnool)	1930-31
2747	Northern Cambodia (Kurnool)	1934-35
3272	Northern Cambodia	1935-36
3685	Northern Cambodia	1936-37

I.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—1930-31 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—1930-31 :—Card, Drawing (2 heads), Slubber Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	NORTHERN CAMBODIA.			
	1930-31.	1934-35.	1935-36.	1936-37.
Colour	Creamy-white to creamy.	Creamy-white.	White to creamy-white.	Creamy-white to creamy.
Cleanliness	Shows an occasional stain; fairly clean.	Occasionally stained.	Fairly clean.	Leafy.
Feel	Full bodied.	Somewhat softish.	Smooth and softish.	Soft.
Ginning and neppiness ..	Somewhat knotted and nepped.	Fairly well-ginned.	Fairly well-ginned.	..
Seeds	1% ginned and unginned seeds.	..	..	A few ginned.
Card Sliver	Clean.	Clean.	Clean and soft.	A little leafy.
Card Web	Fairly good.	Good.	A little neppy.	Very neppy.
Weight of 10 flat strips ..	15.7 grams.	20.4 grams.	21.6 grams.	31.8 grams.
Remarks .. ..	..	..	..	..

(b) Yarn :—

	NORTHERN CAMBODIA.			
	1930-31.	1934-35.	1935-36.	1936-37.
Cleanliness	Fairly clean.	Almost clean.	Almost clean.	Fairly clean.
Evenness	Fairly even.	Fairly even.	Fairly even.	A little uneven.
Neppiness	Somewhat neppy.	Fairly neppy.	Neppy.	Very neppy.
Slubbiness .. ..	..	Somewhat slubby.	A little slubby.	..

3. Spinning Test Details and Results :—See Table 6 on page 95.

II.—GRADER'S REPORT* FOR NORTHERN CAMBODIA.

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NORTHERN CAMBODIA.						
		1930-31.	1934-35.	1935-36.	1936-37.	
Contract valued under	Broach.	July/August Broach.	Broach July/August.	July/August Broach.	
Class .. ..	.. ..	Fine.	Fine.	F. G. to fine.	Fully good.
Colour .. ..	.. ..	Slight-cream.	Brownish white; somewhat stained.	Creamy-white.	Brownish white.
Staple Length .. ..	.. ..	7/8 inch.	Full 7/8 inch.	31/32 inch.	7/8 inch.
Staple Strength .. ..	.. ..	Fair.	Very good.	Fair.	Weak.
Regularity .. ..	.. ..	Poor.	Regular.	Fairly regular.	Irregular.
Value above or below contract rate	.. ..	Rs. 35 on.	Rs. 65 on.	Rs. 35 on.	Rs. 10 on.
Basis .. ..	.. ..	Rs. 175.	Rs. 232.	Rs. 220.	Rs. 225.
Date of Valuation .. ..	.. ..	30-5-31.	3-7-35.	1-7-36.	28-6-37.
Remarks .. ..	.. ..	..	..	..	..

*Report for 1935-36 and 1936-37 is made up by the mill supplying the sample.

Table 6.—SPINNING TEST RESULTS FOR NORTHERN CAMBODIA.

Sample No.	Cotton.	Season.	Date of Spinning.	Combs Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.										TEMPERATURE (°F.)	RELATIVE HUMIDITY (%)	Spinning Room.	Testing Room.
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per inch.	LEA.		Count-Work Product.	Counts Actual.	Work of Spindle (lb.)	Count-Work Product.	Yarns per yrd.	Turns per inch.					
															Counts Actual.	Strength (lbs.)											
1064	Northern Cambodia	1930-31	28-5-31	20	10	5.3	8.7	0.4	19.4	25	187	9,100	0.25	17.03	20.1	65.9	1,225	20.1	112.1	2,303	1	0.2	17.1	90	68	70	
1064	Northern Cambodia	1930-31	28-5-31	21		..	..	..	..	20	174	9,375	0.25	10.73	21.2	57.0	1,317	21.2	98.0	2,372	5	1.0	18.0	90	68	70
2747	Northern Cambodia	1931-35	18-6-35	20	10	7.3	10.0	0.4	17.3	10	105	9,510	0.07	17.03	19.9	47.2	1,050	19.9	139.2	2,530	1	3.2	17.3	97	75	73	
2747	Northern Cambodia	1931-35	18-6-35	21		..	..	..	..	18	181	9,500	5.55	10.73	23.7	65.6	1,553	23.7	115.8	2,533	4	1.2	10.1	95	70	76
2747	Northern Cambodia	1931-35	14-6-35	30		..	..	..	..	17	169	9,600	0.04	21.50	20.5	19.0	1,126	20.5	101.0	2,555	5	3.2	21.2	89	71	70
2752	Northern Cambodia	1935-36	13-7-36	20	10	7.8	11.5	0.3	18.7	10	103	9,700	6.10	17.05	20.3	42.1	1,071	20.3	121.0	2,517	1	4.0	17.1	86	73	72	
2752	Northern Cambodia	1935-36	17-7-36	21		..	..	..	..	0	174	9,700	5.70	10.73	27.6	61.7	1,551	27.6	107.1	2,461	1	5.5	19.0	89	73	72
2752	Northern Cambodia	1935-36	17-7-36	30		..	..	..	..	13	156	9,700	7.11	21.50	30.2	17.2	1,130	30.2	82.6	2,522	5	5.0	20.0	88	77	76
3685	Northern Cambodia	1936-37	5-7-37	20	10	12.0	18.1	0.0	30.3	10	191	9,100	0.25	17.03	10.6	81.0	1,027	10.6	130.0	2,571	1	10.5	17.3	87	75	80	
3685	Northern Cambodia	1936-37	6-7-37	21		..	..	..	..	32	177	9,300	5.13	10.73	21.2	60.5	1,101	21.2	102.0	2,100	5	10.8	10.1	80	70	70
3685	Northern Cambodia	1936-37	6-7-37	30		..	..	..	..	17	111	8,500	0.54	21.50	29.8	19.3	1,126	29.8	99.2	2,531	0	12.2	21.0	86	78	85

* Diameter of ring frame front roller— $\frac{1}{8}$ ".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

7.—BENGALS COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season samples of the first arrivals of the new crop.

Sample No.	Cotton.	Place.	Season.	Sample No.	Cotton.	Place.	Season.
1602	Bengals.	Kosi ..	1932-33	3030	Bengals.	Hansi ..	1935-36
2106	"	Kosi ..	1933-34	3438	"	Hansi ..	1936-37
2667	"	Hansi ..	1934-35	3898	"	Hansi ..	1937-38

I.—SPINNING TESTS.

Treatment :—

- (a) *Blow-room.*—Upto 1934-35 inclusive :—Porcupine, Crighton (twice), Hopper feeder, Scutcher (3 times); 1935-36 onwards; Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).
- (b) *Card-room.*—Upto 1933-34 inclusive :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1. From 1934-35 onwards :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a hand drive arrangement.

Spinning Master's Report :—

(a) *Cotton :*

BENGALS.						
	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Colour	Creamy white	Creamy-white creamy	to Creamy-white..	White to creamy-white.	White to creamy-white.	White to creamy-white.
Impurities	Leafy; stained	Badly stained leafy.	and Badly stained; leafy..	Leafy; a little stained.	Leafy; slightly dusty; a little stained.	A trifle leafy and dirty; a little stained
Texture	Roughish	Fairly good	Softish..	Rough	Rough..	Rough
Grain and neppling	Seemingly knotted	..	Fairly well-ginned	Well-ginned	Well-ginned	Good.
Foreign matter	2.2% unginned	Contains a few seeds..	..	..	..	A few.
Stem	Almost clean	Clean	Fairly clean	Almost clean	A little leafy	Almost clean
Web	Good	Good	Fairly good after easing the tension.	Good	Good, almost free from neps.	Good; absolutely free of neps
Weight of 10 flat bolls	22.5 grams	19.9 grams	20.3 grams	21.0 grams	18.4 grams	16.3 grams.
Stems	Well-watered; break-also excessive in G.A.	..	A poor sample	..	..	..

(b) *Yarn :*

BENGALS.						
	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Evenness	Clean	Little leafy	Fairly clean	Clean	Clean and free of leaf	Clean.
Strength	Fairly even	Fairly even in the lower count only.	Fairly uneven..	Uneven	..	Fairly even.
Neppling	Almost nep-free	Free of nep	Free of nep	Nep-free	..	Free of nep.
Slubbiness	..	..	slubby	Somewhat slubby	Rather slubby.	A little slubby.

*Spinning Test Details and Results :—*See Table 7 on page 98.

II.—GRADER'S REPORT* FOR BENGALS COTTON.

		BENGALS.				
		1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Contract valued under	.. ..	Bengals.	Bengals.	Bengals.	Bengals.	Bengal.
Class ..	.. ..	Fully good.	Fully good.	Fully good.	Fully good M. G.	Fully good M. G.
Colour ..	.. ..	White.	Dull.	White.	Fairly white.	White.
Staple Length	.. ..	11/16 inch.	3/8 inch.	3/8 inch.	1/2 inch.	1/2 inch.
Staple Strength	.. ..	Fair.	* Rather poor.	Fair.	Good.	Good.
Regularity ..	.. ..	Fair.	Good.	Fair.	Good.	Good.
Value above or below contract rate	.. ..	Rs. 10 on.	Rs. 7 off.	Rs. 2 on.	Rs. 10 on.	Rs. 6 on.
Basis ..	.. ..	Rs. 168.	Rs. 145.	Rs. 151.	Rs. 148.	Rs. 131.
Date of Valuation	.. ..	..	22-1-34.	8-2-35.	4-1-36.	20-12-37.
Remarks ..	.. ..	..	..	..	..	..

* Report since 1933-34 is made up by the mill supplying the sample.

Table 7.—SPINNING TEST RESULTS FOR BENGALS COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				DRAFF FRAME PARTICULARS.*						YARN TEST RESULTS.										TEMPERATURE (°F.)	RELATIVE HUMIDITY (%)
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakage per 100 spindles per hour.	Front Roller Speed, ft. p. m.	Spindle R.P.M.	Draft.	Turns per inch.	Counts Actual.	TEST.		FACTORY.			Twines Class.	Neeps per yard.	Turns per inch. Actual.	Spinning Room.	Treeling Room.		
																Strength lbs.	Count-Strength Product.	Counts Actual.	Work of (inches) (inches).	Count-Work Product.							
1602	Bengals	1932-33	6-1-33	6A	10	13.8	15.2	0.0	27.3	123	175	4,700	1.78	9.87	6.4	47.0	201	6.3	252.1	1,500	4	1.0	9.4	70	70	74	
1602	"	1932-33	5-1-33	6C						215	163	5,000	4.78	11.03	6.0	102.0	651	6.3	259.6	1,497	1	1.2	10.6	79	69	72	
2106	Bengals	1933-34	20-1-34	6A	10	12.5	11.3	0.2	25.2	0	180	4,800	4.80	9.87	5.9	91.8	559	5.0	216.0	2,011	1	0.4	9.5	67	67	74	
2106	"	1933-34	20-1-34	6C						0	180	5,800	4.80	11.04	5.9	117.1	870	6.0	265.2	2,191	5	1.0	10.7	63	63	68	
2106	"	1933-34	20-1-34	8B						87	185	6,400	9.25	12.63	8.3	73.2	608	8.1	202.1	1,701	0	0.9	12.2	80	69	74	
2607	Bengals	1934-35	20-2-35	6B	10	14.1	14.8	0.6	27.3	101	181	5,300	5.00	10.41	6.2	42.7	261	6.3	205.0	1,297	1	1.0	10.2	79	68	70	
2607	"	1934-35	20-2-35	6C						136	107	5,000	5.00	11.03	6.1	50.2	360	6.2	216.1	1,528	1	1.2	10.8	90	67	63	
2607	"	1934-35	20-2-35	8B						294	152	6,350	6.00	12.63	8.2	35.1	284	8.2	176.0	1,111	5	1.2	12.7	80	60	72	
3030	Bengals	1935-36	19-1-36	6B	10	13.5	15.0	0.3	29.7	120	176	5,300	5.10	10.41	6.1	33.1	211	6.2	204.0	1,280	5	0.2	10.1	77	66	66	
3030	"	1935-36	19-1-36	6C						122	192	6,000	5.10	11.03	6.2	60.9	377	6.1	202.2	1,612	5	0.2	10.6	70	67	61	
3030	"	1935-36	19-1-36	8B						210	152	5,300	5.00	12.63	4.1	31.8	232	8.1	160.1	1,717	5	0.3	12.1	79	68	70	
3433	Bengals	1936-37	21-12-36	6B	9	12.8	15.3	0.1	28.4	55	182	5,200	5.10	10.11	6.3	57.5	362	6.2	215.0	1,101	5	0	9.9	82	61	69	
3433	"	1936-37	21-12-36	6C						14	184	5,500	5.10	11.03	6.1	79.3	503	6.1	250.6	1,661	5	0.3	10.6	82	61	72	
3433	"	1936-37	21-12-36	8B						11	140	5,000	5.00	12.63	8.2	50.0	410	4.1	102.2	1,611	5	0.3	12.6	79	62	70	
2808	Bengals	1937-38	10-1-38	6B	10	11.1	12.8	0.1	22.7	69	190	5,000	5.20	10.41	6.1	61.0	301	6.4	213.4	1,502	4	0.4	10.0	82	67	68	
2808	"	1937-38	10-1-38	6C						0	189	5,800	5.20	11.03	6.2	91.8	532	6.2	352.0	2,058	1	0.8	10.6	82	67	68	
3308	"	1937-38	11-1-38	8B						87	108	5,600	5.20	12.67	8.1	55.4	410	8.4	202.0	1,607	1	1.0	12.3	81	66	68	

* Diameter of ring frame front roller; 1". Diameter of ring; 11".
† It is to be noted that the total loss is for a small sample weighing in lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

8.—KHANDESH COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Place.	Season.	Sample No.	Cotton.	Place.	Season.
967	Khandesh	Ranala	1930-31	2105	Khandesh	Saudha	1933-34
1249	"	"	1931-32	2663	"	"	1934-35
968	"	Nimbora	1930-31	3031	"	"	1935-36
1250	"	"	1931-32	3439	"	"	1936-37
1603	"	Saudha	1932-33	3957	"	"	1937-38

Treatment :—

I.—SPINNING TESTS.

(a) *Blow-room*.—Upto 1934-35 inclusive: Porcupine, Crighton (twice), Hopper, Scutcher (3 times). 1935-36 onwards:—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 inclusive: Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1. 1934-35 onwards:—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

Spinning Master's Report :—

(a) *Cotton* :—

KHANDESH.										
Ranala.		Nimbora.		Saudha.						
1930-31.	1931-32.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.	
White to creamy; white; slightly bright.	Creamy white.	White to creamy white.	White to creamy white.	Brightish creamy white.	White to creamy white; bright.	Dullish creamy white.	White to creamy white.	White to creamy white.	White to creamy white.	White to creamy white.
Occasional stain.	Occasional stain; leafy.	Leafy	Somewhat stained; leafy.	Somewhat leafy.	Somewhat leafy.	Very slightly stained; leafy.	Leafy; a trifle stained.	Leafy	Leafy; a little stained.	
..	Slightly rough in feel.	Good	Solish	Good	Smooth and bodied.	Good	Thoroughly	Roughish	Rough.	
Fairly well-ginned.	Well-ginned.	Fairly knotted.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Not well-ginned.	Well-ginned.	
2.1% ginned and un-ginned.	1.8% un-ginned.	1.4% ginned.	1.4% ginned and un-ginned.	2.75% ginned and un-ginned.	A few seeds.	1.3% seeds.	..	Quite a few seeds.	..	
Clean	Clean	..	Clean	Clean	Clean	Clean	Clean	A little leafy.	A little leafy.	
Good	Free of nep	..	Practically nep-free.	Good	Even and nep-free.	Good	Good	Good	Good; fairly free of neps.	
15.3 grams.	18.3 grams	..	18.5 grams	16.8 grams	15.4 grams	19.6 grams	19.9 grams	20.1 grams	21.0 grams.	
Fully pressed	..	Fully pressed.	..	..	..	..	..	..	..

(b) *Yarn* :—

KHANDESH.										
Ranala.		Nimbora.		Saudha.						
1930-31.	1931-32.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.	
Clean	Almost clean.	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean.	
Even in the lower count only.	Even to fairly even.	Even to lower count.	Fairly even.	Fairly even.	Even	Fairly even.	Fairly even.	Fairly even.	Fairly even	
Free of nep.	Practically free of nep.	Nep-free.	Almost free of nep.	Almost free of nep.	Free of nep	Free of nep.	Nep-free.	Free of nep.	Free of nep.	
..	..	..	Occasional sub.	..	..	A little sub-by.	A little sub-by.	Occasional sub.	..	

Spinning Test Details and Results :—See Table 8 on page 101.

II.—GRADER'S REPORT* FOR KHANDESH COTTON.

KHANDESH.

	Saudho.									
	Rancho.		Nimboru.							
	1930-31.	1931-32.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Contract valued under	Oomra.	Oomra.	Oomra.	Oomra.	Oomra.	Oomra.	Oomra.	Oomra.	Oomra.	Oomra.
Class	Fully good.	Fine.	Fully good.	Fine.	Fully good to fine.	Fine.	Fine.	Fully good M.G.	Fully good M.G.	Fully good M.G.
Colour	White.	White.	White.	White.	White.	White.	White.	Fairly white.	Fairly white with creamish tint.	Fairly white.
Staple Length	13/16 inch.	13/16 inch.	13/16 inch.	27/32 inch.	3/4 inch.	3/4 inch.	1/2 inch.	11/16 inch.	11/16 inch.	Shy: 11/16 inch.
Staple Strength	Fair.	Fair.	Fair.	Fair.	Fair.	Very good.	Good.	Good.	Good.	Good.
Regularity	Fair.	Good.	Fair.	Good.	Fair.	Good.	Good.	Fairly good.	Fair.	Fairly good.
Value above or below contract rate	Rs. 5 on.	Rs. 17 on.	Rs. 5 on.	Rs. 18 on.	Rs. 8 on.	Rs. 1 on.	Rs. 2 on.	Rs. 5 on.	Rs. 2 on.	.
Basis	Rs. 165.	Rs. 212.	Rs. 165.	Rs. 212.	Rs. 188.	Rs. 179.	Rs. 226.	Rs. 201.	Rs. 202.	24-2-38.
Date of Valuation	5-2-31.	10-2-32.	5-2-31.	10-2-32.	9-1-33.	22-1-34.	8-2-35.	4-1-36.	17-12-36.	..
Remarks	..	..	..	..	..	..	..	..	..	..

* Report since 1933-34 is made up by the mill supplying the sample.

* Report since 1933-34 is made up by the mill supplying the sample.

Table 8.—SPINNING TEST RESULTS FOR KHANDESH COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.						TEMPERATURE AT SPINNING MOOM. (°F.).		RELATIVE HUMIDITY (%).		
						Flow Room Loss.	Card Room Loss.	Spinning Room.	Total Loss.	Yarn Breakage per 100 spindles per hour.	Front Roller Speed, R.P.M.	Spindle Speed, R.P.M.	Draft.	Turns per Inch.	I.E.A.			ANALYTIC.			Evinces Class.	Steps per yard.	Turns per Inch.		Spinning Moom.	
															Counts Actual.	Strength (lbs.)	Count-Strain (lb.)	Counts Actual.	Work of Ring (inch-lb.)	Count-Work Product.						
967	Khandesh (Banala).	1930-31	2-2-31	101	10	12.7	9.3	0.6	21.2	30	106	..	5.63	12.63	10.4	86.6	901	10.1	295.2	2376	4	1.2	12.2	89	73	67
967	Khandesh (Banala).	1930-31	2-2-31	124	10	..	..	..	..	21	188	..	5.74	13.02	11.9	78.6	935	12.0	100.2	2351	5	1.5	13.1	83	67	68
967	Khandesh (Banala).	1930-31	3-2-31	141	10	..	..	..	..	50	175	..	6.75	15.03	12.0	80.8	789	13.3	110.8	2026	6	1.5	14.8	82	68	67
1249	Khandesh (Banala).	1931-32	2-2-32	124	10	11.2	10.8	0.5	21.3	29	188	7200	0.53	11.02	11.9	87.1	1016	12.1	195.6	2246	3	1.8	13.6	82	66	67
1219	Khandesh (Banala).	1931-32	2-2-32	141	10	..	..	..	..	18	175	7200	0.50	15.63	13.6	71.0	671	12.6	117.2	2046	4	2.6	14.7	83	68	65
1249	Khandesh (Banala).	1931-32	3-2-32	148	10	..	..	..	..	55	145	7800	0.51	15.97	13.0	78.0	1002	11.0	150.8	2263	4	1.8	13.4	82	66	66
968	Khandesh	1930-31	2-2-31	104	10	12.3	10.2	0.7	21.8	10	104	..	5.61	12.63	10.1	91.2	913	10.3	292.0	2167	1	1.2	12.1	80	73	66
968	Khandesh	1930-31	2-2-31	124	10	..	..	..	..	48	185	..	5.74	13.02	11.6	89.1	1051	11.0	292.1	2100	5	1.7	13.1	83	67	69
963	Khandesh	1930-31	3-2-31	144	10	..	..	..	..	93	175	..	6.75	15.03	14.1	67.1	895	11.2	130.8	1042	0	2.6	14.5	82	68	65
1250	Khandesh	1911-32	3-2-32	124	10	10.2	10.3	0.6	19.8	67	187	7250	0.38	11.02	12.2	80.2	678	12.6	191.0	2320	4	0.8	13.5	82	69	71
1250	Khandesh	1931-32	4-2-32	144	10	..	..	..	..	60	175	7400	0.34	15.63	13.9	66.6	911	13.8	171.1	2107	1	1.2	14.0	81	66	71
1250	Khandesh	1911-33	1-2-32	118	10	..	..	..	..	39	184	7800	0.58	15.07	11.0	61.9	1111	13.8	168.0	2318	4	1.2	15.4	91	66	69
1603	Khandesh	1912-33	5-1-33	124	10	12.1	10.2	0.4	22.0	188	189	7300	0.10	14.92	12.2	71.1	867	12.1	181.8	2350	4	1.2	13.0	80	70	74
1993	Khandesh	1912-33	5-1-33	144	10	..	..	..	..	131	163	6050	0.10	11.94	12.0	81.0	890	11.8	177.2	2307	4	1.2	14.3	81	66	71
1903	Khandesh	1912-31	9-1-33	148	10	..	..	..	..	51	190	7050	0.23	15.97	13.4	70.2	900	13.8	173.2	2300	1	1.2	15.0	80	69	73
2103	Khandesh	1913-31	27-1-34	124	10	16.0	10.8	0.3	29.0	58	104	7500	5.25	14.02	12.6	78.5	912	12.0	194.8	2358	3	0.5	13.1	81	68	72
2105	Khandesh	1913-31	27-1-34	114	10	..	..	..	..	87	108	7000	0.13	11.93	13.0	67.8	887	11.2	163.2	2317	1	0.5	11.5	81	67	72
2105	Khandesh	1913-31	27-1-31	148	10	..	..	..	..	53	176	7750	0.13	15.07	14.0	75.0	1003	13.0	176.8	2374	4	0.6	15.1	81	67	70
2603	Khandesh	1914-35	13-2-35	104	10	10.3	10.0	0.4	20.4	27	109	6800	5.22	12.63	10.2	70.3	809	10.2	225.2	2297	4	1.0	12.0	80	69	63
2603	Khandesh	1914-35	10-2-35	124	10	..	..	..	..	36	166	6900	5.21	13.02	11.0	61.7	714	12.2	185.2	2256	5	0.8	13.2	70	67	68
2603	Khandesh	1914-35	10-2-35	121	10	..	..	..	..	44	183	7300	5.21	14.05	12.1	71.3	800	12.2	187.0	2250	5	1.0	14.2	70	68	68
3031	Khandesh	1915-36	14-1-36	104	10	10.2	12.3	0.3	21.4	36	197	6900	7.00	12.01	10.1	72.4	753	10.2	201.0	2091	4	0.8	12.0	70	66	62
3071	Khandesh	1915-36	14-1-36	124	10	..	..	..	..	29	170	5900	5.35	13.02	12.0	56.5	678	11.9	178.4	2123	4	0.5	13.5	70	67	65
3031	Khandesh	1915-36	14-1-36	121	10	..	..	..	..	29	182	7300	5.08	14.03	12.3	63.9	786	12.3	183.2	2253	4	0.5	11.2	86	68	63
3439	Khandesh	1916-37	21-12-36	104	10	10.5	12.0	0.4	22.3	53	181	6100	5.16	12.67	10.4	48.2	501	10.2	181.0	1852	4	0.6	12.1	70	62	70
3439	Khandesh	1916-37	21-12-36	101	10	..	..	..	..	50	196	7200	5.40	13.58	10.3	68.6	707	10.4	194.0	2018	4	0.8	13.1	76	63	60
3436	Khandesh	1916-37	21-12-36	121	10	..	..	..	..	50	182	7200	5.10	14.05	12.1	49.2	595	12.3	193.2	2007	4	0.8	11.4	76	65	71
3927	Khandesh	1937-38	4-3-38	81	10	12.3	12.0	0.4	23.0	22	240	7250	1.00	12.67	8.1	71.7	910	8.3	212.0	2000	4	0.8	11.8	87	69	63
3937	Khandesh	1937-38	4-3-38	80	10	..	..	..	..	22	213	7250	4.90	12.68	8.2	68.0	811	7.9	297.2	2500	4	0.6	12.3	87	70	60
3937	Khandesh	1937-38	4-3-38	100	10	..	..	..	..	55	218	8100	5.53	14.20	10.0	71.5	735	10.2	201.1	2085	4	1.0	13.9	80	76	66

* Diameter of ring frame front roller : 1". Diameter of rings : 1½".
† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

9 (a).—UJJAIN COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples the first arrivals of the new crop.

Sample No.	Cotton.	Place.	Season.	Sample No.	Cotton.	Place.	Season.
969	Ujjain	Ujjain ..	1930-31	2664	Ujjain	Ujjain ..	1934-35
251	"	" ..	1931-32	3028	"	" ..	1935-36
370	"	" ..	1932-33	3453	"	" ..	1936-37
107	"	" ..	1933-34	3958	"	" ..	1937-38

J.—SPINNING TESTS.

Treatment :—

- (a) *Blow-room*—Upto 1934-35 (inclusive):—Porenpine, Crighton (twice). Hopper, Scutcher (3 times). 1935-36 onwards:—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).
- (b) *Card-room*—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber Inter, Rover and spun from single hank roving on Ring Frame No. 1 1934-35 onwards:—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

Spinning Master's Report :—

(a) Cotton :—

UJJAIN (UJJAIN).								
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
..	Creamy-white.	Creamy-white; slightly bright.	White ..	White to creamy-white; brightish.	Creamy-white.	White ..	White ..	White.
ness ..	Fairly leafy ..	Occasionally stained; fairly leafy.	Leafy ..	Occasional stain; somewhat leafy.	Occasionally stained; leafy.	Leafy; a little stained.	Leafy ..	Fairly leafy; a little stained.
..	Good ..	Good ..	Soft and fairly good.	Good smooth ..	Smooth ..	Good ..	Good ..	Fair.
ng and neppl ..	A good deal knotted.	Fairly ginned.	Somewhat knotted and nepped.	Well-ginned ..	Well-ginned ..	Well-ginned ..	..	Well-ginned.
..	1.0% unginned	2% ..	..	Contains a few unginned seeds.	Contains 1.3% seeds.	Contains 0.75% full clean seeds.	2.44% ..	Some.
Silver ..	..	Almost clean ..	Almost clean ..	Clean ..	Clean ..	Fairly clean ..	Leafy ..	A little leafy.
Web ..	..	Nep-free; a trifle cloudy.	Good ..	Even and nep-free.	Good ..	Web good ..	A little neppy	Good.
nt of 10 flat ps.	..	10.8 grams ..	17.7 grams ..	18.5 grams ..	20.0 grams ..	17.1 grams ..	..	24.9 grams.
arks ..	Staple irregular and weak.	..	Slightly watered	..	..	..	..	..

(b) Yarn :—

UJJAIN (UJJAIN).								
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
ness ..	Clean ..	Fairly clean ..	Almost clean ..	Clean ..	Almost clean ..	Clean ..	Fairly clean ..	A little leafy.
ness ..	Fairly even in lower counts.	..	Even in two lower counts.	Even ..	Even ..	Even ..	Even in the lower count only.	Even.
plness ..	Fairly free of nep.	Somewhat neppy.	Practically free of nep.	Nep-free ..	Fairly free of nep.	Nep-free ..	Fairly free of nep.	A little neppy.
ness ..	A little slubby.	Slubby ..	A trifle slubby.	..	..	..	..	..
arks ..	..	..	..	..	..	..	..	..

Spinning Test Details and Results :—See Table 9 (a) on page 104.

II.—GRADER'S REPORT* FOR UJJAIN COTTON.

UJJAIN (UJJAIN).

	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Contract valued under	Branch ..	Branch ..	Branch ..	Branch ..	Branch ..	Omra ..	Omra ..	Omra.
Class ..	Fully good	Fully good to fine	Fully good	Fully good	Fully good	Fully good	Fully good M.G.	Fully good M. G.
Colour	White ..	White ..	Whitish ..	White ..	White ..	Fairly white	Dull ..	White.
Staple Length	1 inch ..	34 inch ..	44 inch ..	1 inch ..	1 inch ..	34 inch ..	1 inch ..	1 inch.
Staple Strength	Fair ..	Fair ..	..	Fair ..	Good ..	Good ..	Fairly good	Good.
Regularity ..	Fair ..	Good ..	Irregular	Very fair	Fair ..	Good ..	Fairly good	Good.
Value above or below contract rate	Rs. 10 off	Rs. 20 on	Rs. 5 off	Rs. 5 off	Rs. 20 on	Rs. 18 on	Rs. 1 on	Rs. 8 on.
Basis ..	Rs. 200 ..	Rs. 220 ..	Branch F.G. April May 1933.	Rs. 199 ..	Rs. 252 ..	Rs. 201 ..	Rs. 208 ..	Rs. 192.
Date of Valuation	5-2-31 ..	10-2-32 ..	..	22-1-34 ..	8-2-35 ..	4-1-36 ..	30-12-36..	24-2-38.
Remarks	..	..	Silky with fine fibres; leafy.	..	..	..	..	..

* Report since 1932-33 is made up by the mill supplying the sample.

Table 9 (a).—SPINNING TEST RESULTS FOR UJJAIN COTTON.

Sample No.	Cotton.	Season.	Date of spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING SPINNING PARTICULARS *						YARN TEST RESULTS.										TEMPERATURE (° F.)	RELATIVE HUMIDITY (%)	
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R.P.M.	Spindle Speed, R.P.M.	Draft.	Turns per inch	LEA			BALISTICO.			Neps per yard.	Turns per inch Actual.	Spinning Room.	Testing Room.				
															Counts Actual	Strength (lbs)	Count-Strength Product	Work of Rupture (inch-lb)	Count-Work Product.	Evenness Class.								
060	Ujjain	1030-31	3-2-31	10	10	11.1	10.1	0.2	20.2	0	184	..	5.21	12.03	0 0	125.0	1,257	10 0	247.2	2172	3	2 0	12.2	81	63	08	25	27
060	"	1030-31	3-2-31	12A		..	..	..	..	8	180	..	5.43	13.02	12 1	90 7	1007	12 0	187.0	2371	4	2 5	13.0	81	07	09		
060	"	1030-31	3-2-31	14A		..	..	..	..	7	170	..	5.28	15.03	13 7	70 5	1080	13 9	154.4	2140	0	2 5	14.0	82	70	74		
1251	Ujjain	1031-32	3-2-32	12A	10	10.0	11.4	0.6	21.6	44	187	7250	0.22	12.02	12 1	87 1	1051	11 8	190.0	2312	4	2 0	12.3	82	60	71		
1251	"	1031-32	4-2-32	11A		..	..	..	..	42	175	7300	0.38	15.08	13 7	80 1	1081	15 6	173.2	2350	5	1 2	14.5	81	66	70		
1251	"	1031-32	4-2-32	14B		..	..	..	..	42	183	7800	0.41	15.07	13 4	01 3	1223	14 8	109.4	2338	5	2 2	15.3	81	60	70		
1670	Ujjain	1032-33	23-2-33	12A	10	11.0	9.0	0 4	20.6	7	190	7350	5.66	13.02	11 0	100 1	1101	12 2	205.2	2503	3	1 8	15 0	83	00	70		
1070	"	1032-33	24-2-33	14B		..	..	..	..	80	100	8000	0.58	15.07	14 3	81 3	1205	14 1	178.4	2515	4	1 2	15 0	82	07	72		
2107	Ujjain	1033-34	30-1-31	10	10	11.1	10.8	0.2	20.6	0	202	7000	5.42	12.03	10 6	158.7	1,587	10 1	280.4	2832	3	0 8	12.2	70	07	07		
2107	"	1033-34	20-1-34	12A		..	..	..	..	0	107	7450	5.32	13.02	11 8	133 7	1578	12 0	236.4	2930	3	0 5	13 1	80	07	72		
2107	"	1033-34	20-1-34	12B		..	..	..	..	7	200	8000	5.47	11.03	12 1	130.3	1610	12 0	243.2	2918	3	0 5	14 2	70	67	72		
2107	"	1033-34	1-2-31	11B		..	..	..	..	51	101	8200	0.34	13.07	11 3	106.3	1,320	11 1	188.8	2862	4	0 5	15 1	82	01	68		
2004	Ujjain	1034-35	18-2-35	12A	3	10.4	11.1	0.2	20.5	0	200	7600	5.32	13.02	12 2	120 1	1100	12 0	237.2	2840	3	2 0	13.5	79	03	68		
2004	"	1034-35	18-2-35	11A		..	..	..	..	7	182	7300	5.10	11.08	14 3	99 0	1,124	14 1	202.0	2848	4	1 5	11 9	80	03	70		
2004	"	1034-35	19-2-35	11B		..	..	..	..	0	192	8200	5.10	15.07	11 0	111 2	1,357	11 1	203.0	2871	1	1 0	15.5	80	68	69		
2004	"	1034-35	22-2-35	10		..	..	..	..	30	180	7000	5.05	15.07	10 1	60 6	1,141	10 0	105.2	2742	5	1 8	15 5	80	70	71		
3025	Ujjain	1035-30	10-1-30	12A	10	11.6	11.4	0.2	21.8	0	105	7650	5.30	13.02	11 0	123.0	1,184	12 2	220.8	2767	4	0 5	13.0	79	70	70		
3025	"	1035-30	11-1-30	14A		..	..	..	..	13	180	8850	5.30	14.08	11 3	92.8	1,327	14 2	190.4	2704	4	0 3	14 8	78	03	65		
3025	"	1035-30	11-1-30	11B		..	..	..	..	20	180	8000	5.30	15.07	11 3	110.2	1,270	14 0	202.4	2834	4	0 8	15 0	78	65	01		
8453	Ujjain	1036-37	5-1-37	12A	8	14.8	11.0	0.5	27.0	22	107	7600	5.13	13.02	12 8	68 2	800	12 7	188.4	2893	3	1 0	15 5	81	05	08		
3453	"	1036-37	5-1-37	14A		..	..	..	..	22	180	7000	5.32	14.08	14 4	60 0	813	11 0	100.4	2170	4	1 0	11.0	80	08	72		
3453	"	1036-37	5-1-37	11B		..	..	..	..	30	181	8000	5.32	15.07	11 0	79 0	1,111	14 5	182.4	2015	5	1 5	15 7	70	68	72		
3058	Ujjain	1037-38	7-3-38	12A	10	12.0	11.4	0 1	25.5	58	212	7050	5.15	15.02	12 2	70 8	971	12 7	189.2	2407	3	2 8	14 3	81	09	00		
3058	"	1037-38	7-3-38	14A		..	..	..	..	50	106	7000	5.12	14.08	13 8	73 0	1,020	14 2	170.2	2545	3	2 5	14 1	81	08	60		
3058	"	1037-38	10-3-38	11B		..	..	..	..	15	194	8500	5.24	15.07	11 9	87 7	1,210	11 1	183.0	2380	3	2 2	15 3	83	07	08		

* Diameter of ring from front roller, 1". Diameter of rings, 14".
† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

9 (b).—UJJAIN COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of the first arrivals of the new crop.

Cotton.	Place.	Season.	Sample No.	Cotton.	Place.	Season.
Ujjain	Mandsaur	1930-31	3064	Ujjain	Mandsaur	1935-36
"	"	1932-33	3454	"	"	1936-37
"	"	1933-34	3956	"	"	1937-38
"	"	1934-35				

I.—SPINNING TESTS.

Preparation :—

(a) *Blow-room*:—Upto 1934-35 inclusive :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times). 1935-36 onwards :—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room* :—Upto 1933-34 inclusive :—Card, Drawing (2 heads), Slubber, Inter Rover and spun from single hank roving on Ring Frame No. 1. 1934-35 onwards :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

Spinning Master's Report :—

(a) *Cotton* :—

UJJAIN (MANDSAUR).								
		1930-31.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
..	..	Creamy-white	White; brightish.	White to creamy-white; brightish.	White	White to creamy-white.	Creamy-white	White to creamy-white.
..	..	Leafy; stained.	Somewhat leafy.	Fairly clean	Fairly leafy	Somewhat leafy; a little stained.	Leafy; a little stained.	Fairly leafy.
..	..	Goodish	Roughish	Good	Good	Roughish	Fair	Fair.
and nep-		Fairly well-ginned	Good	Well-ginned	Well-ginned	Well-ginned	Well-ginned	Well-ginned.
..	..	2% unginned	3% unginned	..	Contains 2.5% seeds and kappas.	..	9.94%	..
..	..	..	Clean	Clean	Clean	Fairly clean	Contains a little leaf.	Fairly clean.
..	..	..	Fairly good; considerable shedding.	Good	Good	Good	A little leafy but free from nep.	Good; nep-free.
10 flat	..	..	20.1 grams	15.7 grams	19.0 grams	18.4 grams	19.5 grams	20.3 grams.
..	..	..	Excessive yarn breakage.	..	..	..	..	..

(b) *Yarn* :—

UJJAIN (MANDSAUR).								
		1930-31.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
..	..	Clean	Clean	Clean	Almost clean	Clean	A little leafy	Fairly clean.
..	..	Fairly even	Fairly even	Even in two lower counts.	Fairly even	Even	Fairly even	Even.
..	..	..	Almost nep-free.	Free of nep	Practically free.	Free of nep	Almost free of nep	Free of nep.
..	..	..	..	..	..	A little slubby	..	..
..	..	A little leafy	..	..	..	..	..	..

Spinning Tests Details and Results :—See Table 9 (b) on page 107.

II.—GRADER'S REPORT* FOR UJJAIN COTTON.

		UJJAIN (MANDSAUR).						
		1930-31.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Contract valued under	.. ..	Brosch.	Oomra.	Oomra.	Brosch.	Oomra.	Oomra.	Oomra.
Class	.. ..	Fully good.	Fino.	Fino.	Fully good.	Fully good.	Fully good M.O.	Fully good M. G.
Colour	.. ..	White.	White.	White.	White.	Dull white.	White.	White spotted.
Staple Length	.. ..	7/8 inch.	3/4 inch.	21/32 inch.	19/32 inch.	11/16 inch.	5/8 inch.	11/16 inch.
Staple Strength	.. ..	Fair.	Fair.	Fair.	Good.	Fair.	Fairly good.	Good.
Regularity	.. ..	Fair.	Fair.	Fair.	Fair.	Irregular.	Fairly good.	Very poor.
Value above or below contract rate	.. ..	Rs. 10 off.	Rs. 10 on.	Fair.	Rs. 5 on.	Rs. 5 on.	Rs. 3 off.	Rs. 3 on.
Bales	.. ..	Rs. 203.	Rs. 188.	Rs. 183.	Rs. 252.	Rs. 182.	Rs. 209.	Rs. 162.
Date of valuation	.. ..	5-2-31.	..	15-2-31.	8-2-35.	30-1-36.	30-12-36.	24-2-38.
Remarks	.. ..	..	..	..	..	..	..	..

* Report since 1932-33 is made up by the mill supplying the sample.

Table 9 (b).—SPINNING TEST RESULTS FOR UJJAIN COTTON.

Sample No.	Cotton.	Screen.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.										TEMPERATURE AND HUMIDITY (%).		
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per inch.	Lbs.			BALISTICO.			Evenness Class.	Keps per yard.	Turns per inch Actual.	Spinning Room.	Spleining Room.	RELATIVE HUMIDITY (%).
															Count Actual.	Strength (lbs.)	Count of Product.	Work of Rupture (Inch-lb.)	Count of Product.							
970	Mandsaur	1930-31	3-2-31	10	10	13.1	9.9	0.5	22.1	110	194	..	5.10	12.01	113.0	10.1	250.4	2,327	4	2.5	12.3	81	81	68		
970	"	1930-31	3-2-31	12	12	..	..	..	..	16	139	..	5.32	13.02	99.7	11.8	190.4	2,217	5	2.7	13.0	81	81	67
970	"	1930-31	3-2-31	14	14	..	..	..	..	33	176	..	6.13	15.03	58.1	14.0	149.6	2,121	6	2.5	14.0	82	82	70
1601	Mandsaur	1932-33	4-1-33	10	10	12.8	12.0	0.6	23.8	73	184	0.300	5.31	12.03	71.1	10.0	106.8	1,003	4	1.0	12.1	80	80	72		
1601	"	1932-33	4-1-33	12A	12A	..	..	..	..	102	170	0.800	5.42	13.02	53.7	11.9	100.2	2,013	5	1.0	13.4	82	82	74
1601	"	1932-33	3-1-33	12B	12B	..	..	..	..	87	177	7.150	5.32	14.03	62.0	12.1	180.4	2,110	5	1.2	14.1	80	80	74
2140	Mandsaur	1933-34	10-2-34	10	10	8.9	10.8	0.3	19.0	55	193	0.500	5.21	12.03	91.2	10.3	203.0	2,050	3	0.8	12.2	83	83	69		
2140	"	1933-34	20-2-34	12	12	..	..	..	..	15	100	7.200	5.37	13.02	81.2	11.0	205.2	2,183	3	0.8	13.5	81	81	66
2140	"	1933-34	20-2-34	14	14	..	..	..	..	58	178	7.700	6.10	15.07	74.7	11.2	191.1	2,307	5	1.0	15.3	81	81	70
2600	Mandsaur	1934-35	19-2-35	10	10	12.7	10.3	0.3	21.0	0	202	7.000	5.12	12.03	140.7	10.0	256.8	2,512	4	1.0	12.0	81	81	66		
2600	"	1934-35	19-2-35	12	12	..	..	..	..	15	106	7.150	5.33	13.02	80.0	12.5	108.8	2,405	5	1.2	13.5	79	79	60
2600	"	1934-35	19-2-35	14	14	..	..	..	..	51	180	8.000	6.15	15.07	81.6	11.2	174.0	2,453	5	1.2	15.4	80	80	67
3004	Mandsaur	1935-36	4-2-36	8A	10	9.4	13.4	0.3	24.7	33	180	3.500	5.00	11.31	55.4	8.2	106.0	1,007	3	0.8	11.2	81	81	63		
3004	"	1935-36	4-2-36	8B	10	..	..	..	..	33	192	6.900	5.20	12.07	81.7	8.1	248.8	2,010	3	0.8	12.2	82	82	65
3004	"	1935-36	4-2-36	10B	10	..	..	..	..	27	174	7.100	5.11	11.20	72.2	10.2	208.0	2,080	4	0.5	11.5	79	79	63
3454	Mandsaur	1936-37	5-1-37	8A	10	10.0	13.3	0.4	22.9	22	192	4.600	5.10	11.31	58.4	8.5	211.2	1,810	4	0.5	11.0	81	81	66		
3454	"	1936-37	7-1-37	8B	10	..	..	..	..	22	102	0.300	3.05	12.07	81	107.0	288.8	2,350	4	0.8	11.7	80	80	72
3454	"	1936-37	6-1-37	10A	10	..	..	..	..	64	188	7.100	4.80	13.58	73.1	10.2	208.8	2,100	4	0.8	13.2	81	81	74
3454	"	1936-37	6-1-37	10B	10	..	..	..	..	18	160	7.600	4.89	11.29	60.0	0.0	210.0	2,248	4	0.5	13.0	80	80	70
3856	Mandsaur	1937-38	3-3-38	8	10	11.3	11.9	0.3	22.1	44	216	7.200	4.81	12.07	87.2	8.3	274.8	2,250	3	0.8	11.7	80	80	68		
3856	"	1937-38	4-3-38	10A	10	..	..	..	..	18	216	7.000	5.85	13.58	67.0	10.1	107.6	1,000	4	0.5	13.1	85	85	67
3856	"	1937-38	4-3-38	10B	10	..	..	..	..	0	218	8.300	6.53	14.20	81.0	10.1	210.4	2,104	4	0.5	13.8	85	85	67

* Diameter of ring frame front roller : 2". Diameter of rings : 1 1/4".
† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

10.—MOGLAI COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Place.	Season.	Weight (lbs.)
1604	Moglai	Partur	1932-33	11
2145	"	Partur	1933-34	9
2665	"	Partur	1934-35	12
3029	"	Partur	1935-36	11
3458	"	Partur	1936-37	11½
3899	"	Partur	1937-38	11

I.—SPINNING TESTS.

Treatment :—

- (a) *Blow-room*.—Upto 1934-35 (inclusive):—Porcupine, Crighton (twice), Hopper feeder, Scutcher (3 times). 1935-36 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).
- (b) *Card-room*.—Upto 1933-34 (inclusive):—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1. 1934-35 onwards :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 3, which is fitted with tape drive arrangement for spindles while Ring Frame No. 1 possesses a band drive arrangement.

Spinning Master's Report :—

(a) *Cotton* :—

	MOGLAI.					
	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Colour ..	Creamy-white	White to creamy-white.	Dullish white creamy-white.	White to creamy-white; brightish.	Creamy-white to white; darkish tinge.	White.
Oiliness ..	Leafy	Leafy	Leafy	Leafy	A trifle stained	Very leafy.
..	Good	Good roughish	Good	Good	Fair	Rough.
..	Good	Well-ginned	Well-ginned	Fairly well-ginned	Well-ginned	Well-ginned.
..	2% small size, ginned, partly ginned and unginned.	1.1% unginned	..	..	..	..
..	Almost clean	Good	Clean	Clean	Good; slightly leafy	Almost clean.
..	Good	Good	Good	Even and nep-free	Good but a little leafy.	Good; absolutely free of nep.
Weight of 10 flat ripe, marks ..	17.0 grams	15.9 grams	20.4 grams	13.7 grams	..	14.3 grams.
..	Spots of stain and unripe fibres noticeable	8 lb. sample	..	..	..	..

(b) *Yarn* :—

	MOGLAI.					
	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
..	Clean	Clean	Clean	Fairly clean	A little leafy	Clean.
..	Even	Somewhat uneven	Fairly even	Even in the lower counts.	Fairly even	Even.
..	Practically nep-free	Free of nep	Almost free of nep	Free of nep	Almost free of nep.	Free of nep.
..	..	..	A little shabby	A little shabby	..	..
..

Test Details and Results.—See Table 10 on page 110.

II.—GRADER'S REPORT* FOR MOGLAI COTTON.

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		MOGLAI.					
		1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Contract valued under	Oomra.	Oomra.	Oomra.	Oomra.	Oomra.	Oomra.
Class ..	.. ..	Fine.	Fine.	Fine.	Fully good.	Fully good M. G.	Fully good M. G.
Colour ..	.. ..	White.	Dull white.	White.	Fairly white.	Dull white.	Dull white.
Staple Length	.. ..	$\frac{3}{4}$ inch.	$\frac{5}{8}$ inch.	$\frac{1}{2}$ inch.	$\frac{5}{8}$ inch.	$\frac{1}{2}$ inch.	$\frac{1}{2}$ inch.
Staple Strength	.. ..	Fair.	Fair.	Fair.	F. Good.	Good.	Good.
Regularity ..	.. ..	Fair.	Fair.	Fair.	Good.	Good.	Fair.
Value above or below contract rate	..	Rs. 10 on.	Rs. 10 off.	Rs. 5 on.	Rs. 3 on.	Rs. 2 on.	Rs. 5 off.
Basis ..	.. ..	Rs. 188.	Rs. 183.	Rs. 226.	Rs. 201.	Rs. 208.	Rs. 151.
Date of Valuation	.. ..	9-1-33.	15-2-34.	8-2-35.	4-1-36.	8-1-37.	20-12-37.
Remarks	.. ..	..	..	..	..	..	..

* Report since 1933-34 is made up by the mill supplying the sample.

Table 10.—SPINNING TEST RESULTS FOR MOGLAI COTTON.

Sample No.	Cotton	Season.	Date spinning	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.†				RING SPINNING PARTICLES.*				YARN TEST RESULTS						TEMPERATURE (°F.)		RELATIVE HUMIDITY (%)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
						Flow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour	Front Rotor Speed, R. P. M.	Spindle R. P. M.	Draft.	Turns per inch.	Twist (lb./sp.)	Twist (lb./sp.)	Twist (lb./sp.)	Twist (lb./sp.)	Twist (lb./sp.)	Twist (lb./sp.)	Twist (lb./sp.)	Twist (lb./sp.)	Twist (lb./sp.)	Twist (lb./sp.)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
1001	Moghl	1932-33	6-1-33	10A	10	11.0	10.7	0.9	21.6	7.3	182	6,550	5.21	12.63	13.0	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250.4	250

* Diameter of ring of front rotor 2.25 in.; diameter of back rotor 2.25 in.

† It is to be noted that the total loss for a small sample spinning is for the most part negligible. It would be 1.00 lb. or more.

11.—WESTERNS COTTON.

These samples have been tested by arrangements with the Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Place.	Season.
2254	Westerns	Guntakal	1933-34.
2749	Westerns	Guntakal	1934-35.
3151	Westerns	Guntakal	1935-36.
3686	Westerns	Raichur	1936-37.
4012	Westerns	Raichur	1937-38.

I.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—1933-34 :—Poreupine, Crighton (twice), Hopper, Scutcher (3 times).
1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	WESTERNS.				
	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Colour	White to creamy-white; bright.	White to creamy-white; brightish.	White to creamy-white; dullish.	Creamy-white to creamy.	White to creamy-white.
Cleanliness	Leafy.	Leafy.	Leafy.	Leafy.	Leafy.
Feel	Good.	Good smooth.	Good.	Soft.	Fair.
Ginning and neppiness ..	Well-ginned.	A trifle knotted.	Well-ginned.	Good.	Well-ginned.
Seeds	1.7% partly-ginned.	..	..	..	Contains some seeds.
Card Sliver	Clean.	Clean.	Almost Clean.	Leafy.	Fairly clean.
Card Web	Even and nep-free.	Even and nep-free.	Good.	Fair; a little neppy.	A trifle neppy.
Weight of 10 flat strips ..	13.8 grams.	18.2 grams.	13.6 grams.	23.6 grams.	17.7 grams.
Remarks .. .. .	..	..	..	..	..

(b) Yarn :—

	WESTERNS.				
	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Cleanliness	Almost clean.	Clean.	Almost clean.	Fairly leafy.	Fairly clean.
Evenness	Fairly even.	Fairly even.	Fairly even.	Fairly even.	Even.
Neppiness	Free of nep.	Almost free of nep.	Almost free of nep.	Almost free of nep.	Fairly free of nep.
Slubbiness .. .. .	..	..	..	..	..

3. Spinning Test Details and Results :—See Table 11 on page 113.

II.—GRADER'S REPORT* FOR WESTERNS COTTON.

		WESTERNS.			
		1933-34.	1934-35.	1935-36.	1936-37.
		1937-38.			
Contract valued under	.. ..	Broach.	July/Aug. Broach.	Broach April/May.	Broach April/May.
Class	.. ..	Strict fine.	Fine.	Fine.	Fully good.
Colour	.. ..	White.	White.	Brownish white.	Brownish white.
Staple Length	.. ..	31/32 inch.	Barely 13/16 inch.	29/32 inch.	2 inch.
Staple Strength	.. ..	Good.	Fair.	Fairly Good.	Fair.
Regularity	.. ..	Good.	Very irregular.	Regular.	Irregular.
Value above or below contract rate	.. ..	Rs. 35 on Apr./May Broach.	Rs. 25 on.	Rs. 35 on.	Rs. 3 on.
Basis	.. ..	Rs. 183.	Rs. 232.	Rs. 203.	Rs. 164.
Date of Valuation	.. ..	1st May 1934.	3-7-35.	20-4-36.	25-3-38.
Remarks	.. ..	..	..	..	..

* The reports for 1933-34 and 1936-36 onwards are made by the mill supplying the sample.

Table 11.—SPINNING TEST RESULTS FOR WESTERNS COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27			
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.										TEMPERATURE (°F.)		RELATIVE HUMIDITY (%)	
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles	Front Reel Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per Inch.	Tens.			BALISTIC.			Meters per Yard.	Turns per Inch Actual.	Spinning Room.	Washing Room.					
															Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Intimpre (linch-lb.)	Count-Work Product.									
2254	Westerns..	1933-34	30-1-34	20A	10	12.0	8.0	0.4	10.4	5	196	9550	6.07	17.93	10.4	81.5	1699	138.0	2509	4	1.2	17.4	89	66	72				
2254	Westerns..	1933-34	1-5-34	24						22	176	9700	5.67	19.73	21.1	62.8	1513	100.9	2130	4	1.3	19.3	88	70	71				
2254	Westerns..	1933-34	1-5-34	30						17	133	9750	0.01	27.11	20.3	17.5	1392	81.2	2107	5	1.2	22.3	84	69	70				
2719	Westerns..	1934-35	21-6-35	20A	10	12.5	9.8	0.4	21.4	10	196	9050	5.33	17.04	10.6	85.0	1000	130.4	2560	4	2.0	17.1	87	71	70				
2740	Westerns..	1934-35	20-6-35	24						14	179	9000	5.32	19.72	23.1	67.1	1350	107.2	2570	4	1.9	10.0	87	74	81				
2740	Westerns..	1934-35	20-6-35	30						30	151	9000	6.53	27.11	30.1	17.1	1119	87.2	2504	5	1.5	22.1	85	77	74				
3151	Westerns..	1935-36	23-4-36	20A	10	0.1	7.0	0.4	16.6	31	103	9550	5.05	17.03	20.5	67.5	1294	127.9	2556	4	1.2	17.2	88	66	70				
3151	Westerns..	1935-36	23-4-36	24						53	176	9550	5.67	19.73	21.5	52.5	1280	105.2	2504	1	1.2	19.0	89	69	69				
3151	Westerns..	1935-36	23-4-36	50						20	142	8900	6.04	27.29	29.1	45.9	1310	83.2	2421	5	1.0	22.0	89	63	72				
3086	Westerns..	1936-37	6-7-37	20A	10	15.8	14.8	0.3	23.4	10	192	9550	5.05	17.93	20.3	71.2	1445	113.0	2283	1	1.2	17.3	87	77	78				
3086	Westerns..	1936-37	7-7-37	24						13	177	9400	0.00	19.73	21.3	57.2	1300	99.2	2301	1	1.0	19.1	85	80	78				
4012	Westerns..	1937-38	26-4-38	14	10	13.0	11.0	0.1	24.0	22	215	8850	1.07	14.08	11.2	92.1	1312	191.8	2085	3	0.9	11.0	89	69	68				
4012	Westerns..	1937-38	21-4-38	16						24	215	9000	5.51	15.07	10.3	71.8	1219	130.4	2272	3	0.8	14.9	92	69	68				
4012	Westerns..	1937-38	21-4-38	20A						10	193	9100	5.68	17.93	20.5	53.6	1099	103.4	2100	3	1.2	10.9	90	69	68				
4012	Westerns..	1937-38	20-4-38	20B						26	199	10300	5.80	19.20	20.8	62.0	1290	107.2	2208	1	0.8	18.3	90	69	69				

* Diameter of ring frame front roller—1½". Diameter of rings—1½".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for a bulk sample spun under mill conditions it would be less than shown here. This cotton shows signs of deterioration in quality since 1931-35.

12.—MIRAJ COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Place.	Season.
2532	Miraj	Shedbal	1933-34
2750	Miraj	Shedbal	1934-35
3270	Miraj	Shedbal	1935-36
3687	Miraj	Shedbal	1936-37
4011	Athni	Shedbal	1937-38

I.—SPINNING TESTS.

1. *Treatment* :—

(a) *Blow-room*.—1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles while Ring Frame No. 1 possesses a band drive arrangement.

2. *Spinning Master's Report* :—(a) *Cotton* :—

	MIRAJ.				
	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Colour	Creamy-white.	Creamy-white	Creamy-white.	Creamy-white.	Creamy-white
Cleanliness	Leafy.	Leafy.	Leafy.	Fairly leafy.	Leafy.
Feel	Soft silky.	Poorish feel.	Good.	Good.	Good.
Ginning and neppiness	Well-ginned.	Somewhat knotted.	Somewhat knotted.	Well-ginned.	..
Seeds	1% partly-ginned.	..	..	..	Contains cut and whole seeds 0.65%.
Card Sliver	Clean.	Almost clean.	Almost clean.	Good ; n little leafy.	Fairly clean.
Card Web	Even & nep-free.	Good.	Good.	Good ; nep-free.	..
Weight of 10 flat strips	15.5 grams.	16.3 grams.	15.0 grams.	20.0 grams.	14.6 grams.
Remarks .. .. .	..	..	..	..	..

(b) *Yarn* :—

	MIRAJ.				
	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Cleanliness	Almost clean.	Almost clean.	Almost clean.	Fairly clean.	Almost clean.
Evenness	Fairly even.	Even.	Even.	Even.	Even
Neppiness	Free of nep.	Nep-free.	Practically free of nep.	Free of nep.	Fairly free of nep.
Slubbiness .. .. .	..	..	A little slubby.	..	..

3. *Spinning Test Details and Results* :—See Table 12 on page 116.

II.—GRADER'S REPORT FOR MIRAJ COTTON.

		MIRAJ.			
		1933-34.	1934-35.	1935-36.	1936-37.
Contract valued under	.. ..	Broch.	July/Aug. Broch.	Broch July/Aug.	July/August Broch.
Class	.. ..	Fully good.	Fully good.	Fully good.	Fine.
Colour	.. ..	Creamy to light brown.	Brownish.	Brownish.	Brownish White.
Staple Length	.. ..	13/16 inch.	Barely 3/4 inch.	3/4 inch.	7/8 inch.
Staple Strength	.. ..	Fair.	Fair.	Good.	Good.
Regularity	.. ..	Fair.	Somewhat irregular.	Fair.	Regular.
Value above or below contract rate	.. ..	Rs. 15 on April/May Broch.	Rs. 20 on.	Rs. 5 off.	Rs. 20 on.
Basis	.. ..	Rs. 183.	Rs. 232.	Rs. 220.	Rs. 164.
Date of Valuation..	.. ..	1-5-34.	3-7-35.	1-7-36.	25-3-38.
Remarks	.. ..	..	..	..	..

* The report for 1933-34 and 1935-36 onwards is made by the mill supplying the sample.

Table 12.—SPINNING TEST RESULTS FOR MIRAJ COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample, lbs.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				T.R.A.				VARY TEST RESULTS.				Spiraling Room.	Testing Room.			
						Blow Room Loss.	Card Room Loss.	Spiraling Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per inch.	Counts Actual.	Strength, lbs.	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lb.)	Count-Work Product.	Evenness Class.			Steps per yard.	Turns per inch. Actual.	
2253	Miraj	1933-34	30-4-34	20	10	1.0	0.1	0.1	21.2	16	100	9550	5.22	17.08	19.8	60.0	1360	20.0	111.8	2236	4	1.0	17.3	68	66	63
2253	Miraj	1933-34	1-6-34	24A		..	..	..	..	30	170	9500	0.53	10.73	21.8	10.4	1151	21.2	91.2	2207	5	1.2	18.0	88	70	71
2253	Miraj	1933-34	1-5-31	24B		..	..	..	..	32	178	9600	0.58	20.74	24.8	51.3	1272	21.7	89.1	2263	5	1.0	19.0	88	69	68
2760	Miraj	1934-35	21-6-35	20	10	10.0	0.2	0.4	10.2	20	193	9550	5.03	17.03	10.7	63.1	1631	20.4	132.0	2705	3	0.5	17.3	80	76	80
2759	Miraj	1934-35	21-6-35	24		..	..	..	..	41	178	9550	6.25	19.73	23.0	71.5	1637	23.5	114.8	2693	4	0.8	18.8	89	71	74
3270	Miraj	1935-36	14-7-36	16	10	11.0	8.0	0.3	19.7	6	103	8900	5.42	15.67	10.0	80.0	1439	16.3	143.0	2341	3	1.2	15.2	87	72	71
3270	Miraj	1935-36	15-7-36	20		..	..	..	..	11	192	9500	5.20	17.08	20.3	63.3	1295	20.1	110.2	2215	4	0.8	10.3	87	73	71
3270	Miraj	1936-36	14-7-36	21		..	..	..	..	50	162	9000	6.10	10.73	24.2	43.0	1002	23.0	89.8	2110	4	1.0	18.0	87	71	70
3087	Miraj	1936-37	7-7-37	10	10	8.1	4.4	0.1	17.5	0	107	8300	5.51	15.07	16.0	104.5	1672	10.0	109.1	2710	3	0.5	16.3	86	74	70
3087	Miraj	1936-37	8-7-37	20		..	..	..	..	5	102	8250	4.50	17.08	20.1	78.0	1503	20.0	121.0	2402	3	0.5	17.2	80	77	80
3087	Miraj	1936-37	8-7-37	24		..	..	..	..	11	173	8250	5.71	10.73	23.5	64.3	1511	27.3	100.8	2489	4	0.4	10.0	80	74	80
4011	Athmal	1937-38	19-4-38	10	10	12.8	0.1	0.0	21.2	0	217	9350	5.43	15.07	15.6	101.1	1582	15.8	107.8	2493	3	1.0	15.1	69	69	66
4011	Athmal	1937-38	19-4-38	20		..	..	..	..	11	214	10300	5.10	17.08	20.1	70.2	1411	20.5	112.0	2200	3	1.0	17.3	62	69	70
4011	Athmal	1937-38	20-4-38	24		..	..	..	..	15	187	10000	0.40	19.73	21.5	50.3	1242	23.0	96.1	2304	4	1.2	18.0	61	69	63

* Diameter of Ring frame front roller—1". Diameter of rings—11".
† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

13.—SURAT COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of the first arrivals of the new crop.

Sample No.	Cotton.	Season.	Sample No.	Cotton.	Season.
1075	Surat	1930-31	3142	Surat	1935-36
1747	Surat	1932-33	3577	Surat	1936-37
2278	Surat	1933-34	4025	Surat	1937-38
2752	Surat	1934-35			

I.—SPINNING TESTS.

Attachment :—

(a) *Blow-room*.—1930-31 :—Porcupine, Crighton (once only), Hopper, Scutcher (3 times).

1932-33 and 1933-34 :—As above but two passages in the Crighton. 1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 (inclusive) :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

Spinning Master's Report :—

(a) *Cotton* :—

SURAT.							
	1930-31.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
.. ..	White; bright.	White to creamy-white.	White; bright.	White; bright.	White; bright.	White.	White.
.. ..	Fairly clean.	Fairly clean.	A little leafy.	Fairly clean.	A little leafy.	A little leafy.	Contains some leaf.
.. ..	Good-bodied.	Soft and bodied.	Good silky.	Good soft.	Smooth-bodied.	Good-bodied.	Good soft.
Neppliness	Well-ginned.	Very well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.
.. ..	1.25% unginned.	0.8%.	..	..	Contains a few unginned seeds.	..	..
.. ..	Clean.	Clean.	Almost clean.	Clean.	Clean.	Clean soft.	A trifle leafy.
.. ..	Good.	Even and nep-free.	Good.	Even and nep-free.	Even and nep-free.	A little nep; otherwise good.	Fair; a trifle nep.
Flat strips.	0.7 grams; very light.	12.8 grams.	15.6 grams.	15.0 grams.	11.7 grams.	11.1 grams.	16.8 grams.
.. ..	8-lb. sample.	..	..	..	..	..	..

(b) *Yarn* :—

SURAT.							
	1930-31.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
.. ..	Clean.	Clean.	Clean.	Clean.	Clean.	Fairly clean.	Fairly clean.
.. ..	Even.	Even.	Even.	Even.	Fairly even.	Even.	Even.
.. ..	Nep-free.	Free of nep.	Free of nep.	Practically free.	Almost free of nep.	Almost free of nep.	A little nep.
..
..

Spinning Test Details and Results.—See Table 13 on page 119.

II.—GRADER'S REPORT FOR SURAT COTTON.

SURAT.									
		1930-31.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.	
Contract valued under	F. G. M. G. Broach Hedge Contract No. 2. Superfine.	Broach July/Aug. 1934. Superfine.	Broach July/Aug. 1935. Superfine.	April/May Broach 1936. Fino to Superfino.	Broach April/May 1937. Fino to Superfino.	Broach April/May 1938. Fino to Superfino.	
Class	Clean white.	White; bright.	White.	White to Creamy-white.	White.	White.	
Colour	15/16" average.	31/32".	15/16".	Full 31/32".	15/16".	7/8" full.	
Staple Length	Good.	Good.	Very good.	..	Good.	Good.	
Staple Strength	Even.	Very regular.	Regular.	Regular.	Regular.	Regular.	
Regularity	Ra. 50 m.	Ra. 72 m.	Ra. 93 m.	Ra. 50 m.	Ra. 60 m.	Ra. 55 m.	
Value above or below contract rate	F. G. M. G. Broach Contract No. 2. April/May. Ra. 182. 18-4-37.	Ra. 198. 30.5-31.	Broach July/Aug. 1935. ..	Ra. 203. 20.4-36.	Ra. 230. 4.5-37.	Ra. 157-2-0. 3-5-38.	
Basin	
Date of Valuation	
Remarks	Contains little poppory leaf and yellow stains.	Less neppy than last year though staple little short.	

* Report since 1932-33 is made by the Mill supplying the sample.

Table 13.—SPINNING TEST RESULTS FOR SURAT COTTON.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.						TEMPERATURE (°F.)		RELATIVE HUMIDITY (%).					
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R.P.M.	Spindle Speed, R.P.M.	Draft.	Turns per inch.	LEA.			HALLISTIC.			Revenues class.		Neps per yard.	Turns per inch Actual.	Spinning Room.	Washing Room.	
															Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Rupture (Inch-lbs.)	Count-Work Product.							
1075	Surat.	1930-31	10-6-31	24	8	8.2	6.6	0.7	14.9	20	182	9300	5.01	19.73	23.7	81.2	1193	21.5	103.2	2528	4	0.7	18.7	92	69	65	Testing Room.
1075	Surat.	1930-31	10-6-31	30		..	..	..	..	10	158	9350	7.13	23.11	30.1	86.3	1301	30.5	81.8	2195	5	0.5	22.0	92	68	66	
1747	Surat.	1932-33	23-4-33	21	10	6.1	7.4	0.5	13.3	64	178	9000	5.55	19.73	23.9	85.5	1565	24.2	100.0	2465	3	1.2	19.3	87	64	60	
1747	Surat.	1932-33	2-5-33	30		..	..	..	..	80	164	10500	6.89	23.11	30.3	12.7	1201	29.7	52.1	2117	1	2.0	22.6	89	67	66	
2278	Surat.	1932-34	10-5-34	20	10	5.5	8.5	0.3	11.0	5	196	9600	5.91	17.9	20.2	85.0	1735	19.8	133.8	2089	3	1.0	17.1	89	67	69	
2278	Surat.	1932-34	16-5-34	21		..	..	..	..	27	178	9550	5.12	19.73	23.8	80.3	1650	23.0	104.2	2386	4	1.2	18.8	90	68	68	
2278	Surat.	1933-34	16-5-34	30		..	..	..	..	13	162	9550	6.53	21.80	29.5	51.1	1516	29.0	87.6	2510	5	1.2	20.9	90	67	70	
2752	Surat.	1934-35	24-6-35	20	10	6.6	7.9	0.2	14.1		105	9550	6.05	17.08	20.5	84.7	1319	20.1	110.1	2581	3	1.0	17.3	85	79	73	
2752	Surat.	1934-35	25-6-35	24		..	..	..	..	18	179	9550	5.15	19.71	23.6	73.7	1739	23.2	121.0	2877	1	1.2	18.9	86	72	70	
2752	Surat.	1934-35	25-6-35	30		..	..	..	..	17	160	9000	6.71	21.80	20.7	52.1	1550	20.5	91.1	2785	1	1.5	20.8	87	71	72	
3142	Surat.	1935-36	17-4-36	20	10	6.1	7.0	0.3	11.7	0	192	9300	5.95	17.08	20.5	78.8	1615	20.3	127.8	2594	3	1.2	17.3	88	70	70	
3142	Surat.	1935-36	10-4-36	21		..	..	..	..	14	171	9300	5.33	19.73	22.9	71.0	1635	22.8	116.2	2619	1	0.8	19.9	89	66	71	
3142	Surat.	1935-36	10-4-36	30		..	..	..	..	17	144	8550	6.76	21.80	30.1	17.2	1121	30.8	86.2	2655	5	1.5	20.8	87	64	73	
3577	Surat.	1936-37	22-4-37	20	10	6.6	8.2	0.3	11.5	5	191	9300	6.14	17.98	20.0	81.0	1833	20.1	131.1	2701	3	1.2	17.3	90	67	66	
3577	Surat.	1936-37	22-4-37	21		..	..	..	..	18	170	9100	5.31	19.73	24.2	70.2	1696	21.0	111.0	2730	3	1.5	10.0	90	68	66	
3577	Surat.	1936-37	29-4-37	30		..	..	..	..	7	160	9450	6.07	21.80	30.0	51.7	1551	30.4	90.0	2736	1	1.2	20.9	91	67	65	
4025	Surat.	1937-38	20-4-38	20	10	6.5	8.1	0.3	13.2	0	213	10300	6.07	17.08	20.5	86.0	1863	20.0	134.0	2773	3	2.0	17.2	90	67	67	
4025	Surat.	1937-38	27-4-38	24		..	..	..	..	15	101	10200	5.20	19.73	24.7	73.5	1816	24.1	112.8	2752	3	1.8	18.0	89	69	68	
4025	Surat.	1937-38	27-4-38	30		..	..	..	..	13	108	10300	6.54	21.80	30.4	53.2	1617	30.0	80.2	2780	4	1.8	20.7	90	69	66	

Diameter of ring frame front roller—1½". Diameter of rings—1½". It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

14. NAVSARI COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.	Weight (lbs.)
1076	Navsari	1930-31	11
1778	„	1932-33	20
3141	„	1935-36	11
3683	„	1936-37	11

I.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—1930-31 :—Porcupine, Crighton (once only), Hopper, Scutcher (3 times).

1932-33 :—As above but two passages in the Crighton.

1935-36 and 1936-37 :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1932-33 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1935-36 and 1936-37 :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	NAVSARI.			
	1930-31.	1932-33.	1935-36.	1936-37.
Colour	White; bright.	White; very bright.	White; bright.	White.
Cleanliness	Fairly clean.	Fairly clean.	Clean.	A little leafy; a trifle stained.
Feel	Good-bodied.	Silky and bodied.	Good.	Good bodied.
Ginning and Neppiness ..	Well-ginned.	Well-ginned.	Well-ginned.	Well-ginned.
Seeds	0.5% unginned.	..	..	..
Card Sliver	Clean; silky.	Clean and full.	Clean.	Good
Card Web	Very good.	Even and nep-free.	Even and nep-free.	Good; a little neppy.
Weight of 10 flat strips ..	6.5 grams; very light.	15.1 grams.	11.7 grams.	22.2 grams.
Remarks	8 lbs. sample.	..	..	..

(b) Yarn :—

	NAVSARI.			
	1930-31.	1932-33.	1935-36.	1936-37.
Cleanliness	Clean.	Clean.	Clean.	A little leafy.
Evenness	Even.	Fairly even.	Even in the lower counts.	Even.
Neppiness	Free of nep.	Free of nep.	Almost free of nep.	A little neppy.
Slubbiness .. ..	..	..	..	..
Remarks .. ..	..	..	..	..

3. Spinning Test Details and Results :—See Table 14 on page 121.

II.—GRADER'S REPORT FOR NAVSARI COTTON.

1930-31.										1932-33.*										1935-36.*										1936-37.									
Contract valued under										F.G.M.G. Branch II-Igo Contract No. 2.										April/May Branch 1936.										Branch July/Aug. 1937.									
Class										Strict fine.										Fine to S. Fine.										Fine to superfine.									
Colour										Clean white.										White.										White.									
Staple Length										1½".										1½".										15/16".									
Staple Strength										Good.										Good.										Good.									
Regularity										Good.										Good.										Good.									
Value above or below contract rate										Rs. 90 on.										Rs. 55 on.										Rs. 65 on.									
Basis										Rs. 100.										Rs. 203.										Rs. 207.									
Date of Valuation										July/August Rs. 205.										20-1-36.										22-7-37.									
Remarks										29-5-33.																		

* Reports for 1932-33 and 1935-36 are made by the mill supplying the sample.

Table 14.—SPINNING TEST RESULTS FOR NAVSARI COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICLES.*				YARN TEST RESULTS.										TEMPERATURE (°F.)	RELATIVE HUMIDITY (%)	
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per inch.	T.E.A.			BALISTIC.			Days and Class.	Keps per yard.	Turns per inch. Actual.			
															Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Rupture (line-lb.)	Count-Work Product.						
1076	Navsari	1930-31	10-6-31	24	8	0.2	7.0	0.0	13.9	5	182	9800	5.81	16.73	23.1	60.0	1538	23.5	103.2	2425	4	1.5	19.1	92	66	07
1070	"	1930-31	10-6-31	36		..	..	..	..	36	159	9050	7.60	23.11	30.5	44.0	1312	30.0	89.4	2460	5	1.2	22.4	92	68	08
1778	Navsari	1932-33	24-5-33	24	10	7.5	8.3	0.4	15.5	55	170	6700	5.22	10.73	23.7	60.2	1569	23.1	110.0	2388	1	1.0	18.9	80	69	70
1778	"	1932-33	27-5-33	30		..	..	..	..	33	157	6706	6.84	23.11	36.0	15.3	1356	29.7	82.2	2441	5	1.5	22.3	60	07	68
3141	Navsari	1933-36	15-4-36	20	10	3.4	7.1	0.3	10.6	10	162	9350	5.85	17.08	19.0	67.8	1717	16.7	136.0	2091	3	1.0	17.5	69	07	71
3141	"	1935-36	15-4-36	21		..	..	..	..	23	177	9450	5.08	10.73	23.8	60.9	1865	23.0	112.0	2043	4	1.2	10.1	88	60	72
3141	"	1935-36	15-4-36	36		..	..	..	..	10	144	8700	7.14	21.86	20.5	47.9	1413	30.0	89.2	2070	5	1.2	21.4	80	66	74
3083	Navsari	1936-37	1-7-37	20	10	5.1	10.1	0.5	15.1	16	208	10200	6.07	17.98	10.0	60.7	1024	10.0	140.0	2005	3	2.0	17.3	88	70	76
3083	"	1936-37	2-7-37	24		..	..	..	..	32	193	10200	5.45	16.73	23.6	70.5	1870	24.0	126.0	2390	4	2.5	10.2	86	75	80
3683	"	1936-37	2-7-37	36		..	..	..	..	26	150	9460	6.36	21.86	26.1	50.1	1720	30.0	93.4	2502	4	2.8	21.1	87	76	84

* Diameter of ring frame front roller—1½". Diameter of rings—11".

† It is to be noted that the total loss is for small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

15 (a).—TIRUPPUR CAMBODIA COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.
1077	Tiruppur Cambodia	1930-31.
1748	Tiruppur Cambodia	1932-33.
2277	Tiruppur Cambodia	1933-34.
2753	Tiruppur Cambodia	1934-35.
3269	Tiruppur Cambodia	1935-36.
4033	Tiruppur Cambodia	1937-38.

I.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room* : Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times). In 1930-31, it was passed only once thro' the Crighton.

1934-35 onwards : Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room* : Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	TIRUPPUR CAMBODIA.					
	1930-31.	1932-33.	1933-34.	1934-35.	1935-36.	1937-38.
Colour	Creamy-white to creamy.	Creamy-white.	White to creamy-white.	White to creamy-white; bright.	White to creamy-white.	Creamy-white.
Cleanliness	Fairly clean; occasional stain.	Clean.	Fairly clean; occasionally stained.	Clean.	Fairly clean; slightly stained.	Clean.
Feel	Good-bodied.	Good soft.	Good smooth.	Good bodied.	Softish.	Soft.
Glazing and Neppiness ..	Well-glazed, but slightly neppy.	Well-glazed.	Slightly knotted in glazing.	Fairly well-glazed.	A little knotted.	Well-glazed.
Seeds .. ..	..	..	..	..	..	..
Card Sliver	Clean.	Soft and clean.	Almost clean.	Clean and soft.	Almost clean.	Clean.
Card Web	A little neppy and cloudy.	A trifle both neppy and uneven.	Neppy.	Somewhat neppy and uneven.	Somewhat neppy.	Very neppy.
Weight of 10 flat strips ..	19.0 grams.	25.8 grams.	20.5 grams.	23.3 grams.	20.1 grams.	26.1 grams.
Remarks .. ..	..	..	Well-watered	..	Well-watered at the time of pressing.	..

(b) Yarn :—

	TIRUPPUR CAMBODIA.					
	1930-31.	1932-33.	1933-34.	1934-35.	1935-36.	1937-38.
Cleanliness	Fairly clean	Almost clean.	Almost clean.	Clean.	A little leafy.	Fairly clean.
Evenness	Even.	Even.	Even.	Even.	Even.	Even.
Neppiness	A little neppy.	A little neppy.	Somewhat neppy.	Neppy.	Neppy.	Neppy.
Stubbiness .. ..	..	..	Somewhat slubby.	..	Fairly slubby.	..
Remarks .. ..	..	..	..	..	..	..

Spinning Test Details and Results :—See Table 15 (a) on page 124.

Table 15 (a).—SPINNING TEST RESULTS FOR TIRUPPUR CAMBODIA COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Sample No.	Cotton.	Season.	Date of Spinning.	Count or Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS *				YARN TEST RESULTS								TEMPERATURE (°C.)	RELATIVE HUMIDITY (%)			
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss †	Yarn in Machine per hour.	100% Rotor speed.	Spindle speed, R.P.M.	Inch.	Turns per inch.	Cottons Actual	Cottons Standard	Ballistic.	Work of Machine (each lb.)	Wet Weight (each lb.)	Tensile (lb.)	Elongation (in.)					
1077	Cambodia	1920-21	11-6-21	24	8	6.0	10.5	0.6	16.1	5	181	9700	6.15	13.73	25.2	16.21	21.9	94.2	2315	4	3.2	18.6	26	71	64	
1077	Cambodia	1920-21	11-6-21	50		..	..	..	..	16	154	6000	7.05	13.11	25.6	13.9	23.3	81.8	2500	5	3.2	22.3	26	71	64
1748	Cambodia	1922-23	2-4-23	21	10	5.3	12.0	0.5	17.1	45	178	9600	5.61	16.77	23.9	18.22	23.8	131.8	2538	1	2.0	13.0	27	64	64	
1749	Cambodia	1922-23	2-5-23	30		..	..	..	..	20	164	10000	7.06	23.11	26.1	12.95	20.1	73.0	2142	1	3.5	22.3	27	64	64
2277	Cambodia	1924-25	10-2-25	20	10	7.3	11.2	0.3	18.1	10	193	9000	6.19	17.08	20.0	16.11	23.0	152.3	2500	1	3.5	17.2	27	71	71	
2277	Cambodia	1924-25	10-2-25	21		..	..	..	..	9	178	8500	6.22	19.73	23.9	16.91	23.1	131.3	2533	1	3.0	18.0	27	71	71
2277	Cambodia	1924-25	10-2-25	20		..	..	..	..	13	162	9500	7.08	21.83	23.7	13.9	23.3	82.2	2301	1	3.2	21.2	27	64	64
2753	Cambodia	1924-25	24-6-25	20	10	6.2	11.2	0.4	19.4	5	191	9200	6.10	17.08	19.7	18.73	19.8	177.8	2528	1	5.0	17.4	27	71	71	
2753	Cambodia	1924-25	26-6-25	24		..	..	..	..	27	160	8500	5.92	19.73	23.7	17.23	27.7	116.0	2533	1	5.4	18.1	27	71	71
2753	Cambodia	1924-25	26-6-25	20		..	..	..	..	21	161	10000	6.71	21.86	23.2	16.8	26.7	81.1	2531	1	3.1	21.0	27	71	71
3269	Cambodia	1925-26	15-7-26	20	10	7.0	10.7	0.5	16.9	21	179	9500	6.22	17.08	13.9	17.0	19.8	157.8	2521	1	4.8	12.2	27	71	71	
3269	Cambodia	1925-26	15-7-26	21		..	..	..	..	6	174	8500	5.92	19.73	23.7	17.0	23.9	105.0	2530	1	4.2	13.1	27	71	71
3269	Cambodia	1925-26	15-7-26	20		..	..	..	..	17	156	9500	7.01	21.86	23.0	18.1	26.7	81.0	2533	1	5.0	21.1	27	71	71
4011	Cambodia	1927-28	23-4-28	20	10	5.8	11.6	0.5	16.1	10	211	10500	6.19	17.08	20.2	17.2	23.1	122.4	2600	1	3.2	17.1	27	71	71	
4011	Cambodia	1927-28	23-4-28	21		..	..	..	..	11	188	10000	5.85	19.73	21.7	15.1	26.2	105.0	2608	1	3.8	18.1	27	71	71
4011	Cambodia	1927-28	23-4-28	20		..	..	..	..	17	165	9500	7.01	21.86	20.2	18.7	27.2	81.0	2623	1	4.5	21.0	27	71	71

* Diameter of ring frame for 30 holes—11".

† It is to be noted that the total loss is for a small sample weighing 10 lbs. or there about; for better results a larger sample weighing 100 lbs. or there about is necessary.

15 (b).—TIRUPPUR CAMBODIA COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Place.	Season.
2373	Cambodia	Tiruppur	1933-34
2745	Cambodia	Tiruppur	1934-35
3149	Cambodia	Tiruppur	1935-36
3684	Cambodia	Tiruppur	1936-37
4021	Cambodia	Tiruppur	1937-38

I.—SPINNING TESTS.

1. *Treatment* :—

(a) *Blow-room*.—1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. *Spinning Master's Report* :—(a) *Cotton* :—

	TIRUPPUR CAMBODIA.				
	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Colour	Creamy-white; bright.	White to creamy-white; brightish.	White to creamy-white; brightish.	Creamy	Creamy-white.
Cleanliness	Clean; somewhat stained.	Clean with occasional stains.	Clean	Fairly clean; a little stained.	Clean.
Feel	Good smooth ..	Good smooth ..	Good smooth ..	Soft	Soft.
Ginning and neppiness ..	Slightly knotted.	Fairly well-ginned.	Fairly well-ginned.	Well-ginned ..	Well-ginned.
Seeds .. .. .	..	..	..	..	..
Card Sliver	Clean and soft ..	Clean	Clean	Clean	Soft; fairly clean.
Card Web	Cloudy and neppy	Slightly neppy and uneven.	Slightly neppy ..	Very neppy; cloudy.	A trifle neppy.
Weight of 10 flat strips ..	24.7 grams ..	29.7 grams ..	20.3 grams ..	37.4 grams ..	19.8 grams.
Remarks .. .. .	..	..	..	Abnormally heavy strips.	..

(b) *Yarn* :—

	TIRUPPUR CAMBODIA.				
	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Cleanliness	Almost clean ..	Almost clean ..	A little leafy ..	A little leafy ..	Fairly clean.
Evenness	Even in the two lower counts.	Fairly even ..	Fairly even ..	Fairly even ..	Even.
Neppiness	Neppy	Neppy	Neppy	Very neppy ..	A little neppy.
Slubbiness	Slubby	A little slubby ..	..	..	..

3. *Spinning Test Details and Results* :—See Table 15 (b) on page 127.

II.—GRADER'S REPORT* FOR TIRUPPUR CAMBODIA.

TIRUPPUR CAMBODIA.						
		1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Contract valued under	..	Broach	July/Aug. Broach	Broach April/May	July/Aug. Broach	Broach April/May.
Class	..	Fully good	Fine	Fine	Fine	Barely Fine.
Colour	..	Creamy	Creamy-white	Creamy-white	Creamy-white	Creamy.
Staple Length	..	31/32 inch	31/32 inch	15/16 inch	15/16 inch	15, 16 inch.
Staple Strength	..	Good	Very Good	Good	Good	Good.
Regularity	..	Good	Good	Regular	Regular	Regular
Value above or below contract rate	..	Rs. 60 on	Rs. 80 on	Rs. 65 on	Rs. 75 on	Rs. 72 on.
Basis	..	Rs. 203 July/Aug. Broach	Rs. 232	Rs. 203	Rs. 225	Rs. 157.
Date of Valuation	..	9-7-34	3-7-35	20-4-36	28-6-37	7-4-38.
Remarks	..					

* The reports for 1933-34 and 1935-36 onwards are compiled by the mill supplying the sample.

Table 15 (b).—SPINNING TEST RESULTS FOR TIRUPPUR CAMBODIA.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Sample No.	Cotton.	Season.	Date of spinning.	Count's Nominal.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.						TEMPERATURE, (°F.)	RELATIVE HUMIDITY (%)						
					Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.	Yarn (100 yds) per hour.	Front Roller speed, R.P.M.	Spindle speed, R.P.M.	Draft.	Turns per inch.	L.S.A.			BALISTIC.									
														Count's Actual.	Strength (lbs.)	Count's Strength Product.	Counts Actual.	Work of Ringer (lb-yds)			Count's Work Product.					
2373	Tiruppur Cambodia.	1936-34	9-7-34	20	10	6.6	12.5	0.2	18.4	5	200	9000	6.25	17.93	10.6	85.6	1673	20.0	121.8	2470	3	3.8	17.0	86	75	
2373	Tiruppur Cambodia.	1937-34	10-7-34	24		..	..	..	..	14	179	9000	5.54	19.73	21.3	63.3	1611	21.9	101.0	2570	4	3.2	18.7	87	79
2373	Tiruppur Cambodia.	1937-34	10-7-34	30		..	..	..	..	30	160	9600	9.70	21.80	29.3	49.6	1153	30.1	80.0	2120	5	3.5	20.8	87	78
2745	Tiruppur Cambodia.	1934-35	13-6-35	20	10	6.7	11.0	0.1	20.9	20	194	9500	6.10	17.09	21.2	80.3	1702	21.3	122.2	2603	4	1.2	17.3	90	82	
2745	Tiruppur Cambodia.	1934-35	13-6-35	24		..	..	..	..	14	182	9000	5.55	19.73	21.1	70.2	1692	21.9	113.2	2705	4	5.0	10.0	89	80
2745	Tiruppur Cambodia.	1934-35	13-6-35	30		..	..	..	..	13	166	9500	6.94	21.86	29.6	52.7	1500	30.0	90.8	2724	5	5.2	21.2	90	80
3149	Tiruppur Cambodia.	1935-36	17-4-36	20	10	1.5	0.7	0.3	14.1	10	191	9500	6.07	17.93	20.2	89.0	1793	19.9	117.0	2922	3	1.2	17.1	89	72	
3149	Tiruppur Cambodia.	1935-36	20-4-36	24		..	..	..	..	18	171	9350	5.55	19.73	21.7	63.4	1689	21.8	113.0	2902	4	4.5	10.1	89	72
3149	Tiruppur Cambodia.	1935-36	21-4-36	30		..	..	..	..	7	162	9600	6.89	21.80	29.8	52.2	1550	29.9	93.1	2793	5	4.5	21.5	88	72
3084	Tiruppur Cambodia.	1936-37	3-7-37	20	10	5.8	19.3	0.1	21.2	16	210	10200	5.93	17.03	20.0	90.5	1810	20.3	130.0	2689	4	3.2	17.2	85	70	
3084	Tiruppur Cambodia.	1936-37	3-7-37	24		..	..	..	..	5	193	10200	5.01	19.73	23.7	71.7	1699	23.7	108.8	2579	4	7.2	18.8	87	82
3084	Tiruppur Cambodia.	1936-37	3-7-37	30		..	..	..	..	10	160	9400	6.97	21.80	29.7	51.2	1610	29.0	91.0	2639	5	7.0	20.7	87	80
4021	Tiruppur Cambodia.	1937-38	23-4-38	20	10	5.0	9.4	0.3	14.2	0	213	10000	6.19	17.09	20.2	84.6	1700	20.1	125.0	2562	3	1.8	16.0	91	68	
4021	Tiruppur Cambodia.	1937-38	23-4-38	24		..	..	..	..	0	191	10250	5.01	19.73	24.0	70.8	1690	21.2	100.8	2556	3	1.5	18.0	91	68
4021	Tiruppur Cambodia.	1937-38	23-4-38	30		..	..	..	..	13	172	9950	7.05	21.86	30.2	49.6	1403	31.9	93.1	2610	4	1.5	20.7	91	68

* Diameter of ring frame front roller—1½". Diameter of ring—13".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

16.—HUBLI KUMPTA COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.	Weight (lbs.)	Sample No.	Cotton.	Season.	Weight (lbs.)
20	Hubli Kumpta	1930-31	12	2602	Hubli Kumpta	1934-35	11
32	„	1931-32	12	3160	„	1935-36	11
42	„	1932-33	12	3573	„	1936-37	11
29	„	1933-34	11	4013	„	1937-38	11

I.—SPINNING TESTS.

Treatment :—

(a) *Blow-room.*—Upto 1934-35 :—Porcupine, Crighton (twice). Hopper, Scutcher (3 times).

1935-36 onwards :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room.*—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a hand drive arrangement.

Spinning Master's Report :—

(a) *Cotton :—*

HUBLI KUMPTA.									
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.	
..	Creamy-white.	Dullish creamy-white.	White to creamy-white.	Dullish-white to creamy-white.	White to creamy-white.	White to creamy-white.	Creamy-white to white.	White.	
ness ..	Slightly stained, leafy.	..	Dull; leafy ..	Leafy (fine leaf)	Leafy ..	Leafy ..	Fairly leafy ..	Very leafy.	
..	Good ..	..	Good ..	Good ..	Good ..	Good ..	Fairly good ..	Fair.	
g and Neppi-	Well-ginned ..	Somewhat knotted.	Fairly well ginned.	Well-ginned ..	Well-ginned ..	Fairly ginned.	Well-ginned ..	Fair.	
..	..	0.8% ginned and unginned besides undeveloped seeds.	..	..	..	..	..	..
liver ..	Fairly clean ..	A little leafy ..	Almost clean ..	Clean ..	Clean ..	Almost clean ..	Clean ..	A little leafy.	
Yeb ..	Good ..	Good ..	Good ..	Even; neppy.	Good ..	Good ..	Good ..	Good.	
t of 10 flat ..	10.7 grams ..	14.7 grams ..	13.0 grams ..	14.7 grams ..	13.1 grams ..	11.6 grams ..	12.5 grams ..	13.3 grams.	
cks ..	Fully pressed.	..	..	..	..	..	..	..

(b) *Yarn :—*

HUBLI KUMPTA.									
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.	
iness ..	Clean ..	Almost clean ..	Clean ..	Almost clean ..	Clean ..	Clean ..	A little leafy ..	Fairly clean.	
ness ..	Even ..	Even ..	Fairly even ..	Even ..	Fairly even ..	Even ..	Even ..	Even.	
ness ..	Practically nep-free.	Nep-free ..	Free of nep ..	Practically nep-free.	Almost free of nep.	Almost free of nep.	Almost free of nep.	Almost free of nep.	
iness	
arks	

Spinning Test Details :—

II.—GRADER'S REPORT * FOR HUBLI KUMPTA COTTON.

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HUBLI KUMPTA.									
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.	
Contract valued under	Kumta.	Branch Kumta.	F.G.M.G. Branch.	F.G.M.G. Branch.	F.G.M.G. Branch.	F.G.M.G. Branch April/May.	F.G.M.G. Branch April/May 1937.	F.G.M.G. Branch April/May 1938.	
Class	Fully good.	Fully good.	Fully Good.	Fully good.	Strict fully good.	Fully good.	Fully good.	Good to fully good.	
Colour	Slight tinge.	Slight cream.	Brownish-white.	Brownish-white.	Rich Brownish white.	Whitish brown.	Whitish brown.	Dull white.	
Staple Length	15, 16".	20/32".	7/8".	7/8".	20, 32".	3/4".	20/32".	20/32".	
Staple Strength	Fair.	Fair.	Fair.	Fair.	Good.	Poor.	Good.	Good.	
Regularity	Fair.	Fair.	Regular.	Regular.	Regular.	Irregular.	Good.	Good.	
Value above or below contract rate ..	Pava.	Rs. 30 on.	Rs. 22 on.	Rs. 30 on.	Rs. 60 to Rs. 65 above.	Rs. 30 above.	Rs. 25 above.	Rs. 45 above.	
Basis	Rs. 550.	Rs. 160.	Rs. 177.	Rs. 105.	Rs. 245.	Rs. 200.	Rs. 250.	Rs. 157.	
Date of Valuation	15-4-31.	16-5-32.	18-4-33.	9-4-34.	6-3-35.	29-4-36.	6-4-37.	6-4-38.	
Remarks .. ..	..	..	..	..	..	..	..	..

* Report since 1933-34 is made by the mill supplying the sample.

Table 16.—SPINNING TEST RESULTS FOR HUBLI KUMPTA COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Normal.	Weight of Sample, lbs.	WASTE PERCENTAGES.				RINGS FRAME PARTICULARS.				YARN TEST RESULTS.						TEMPERATURE AND HUMIDITY (°F.)	RELATIVE HUMIDITY (%)				
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, ft. p. m.	Spindle Speed, ft. p. m.	Draft.	DRASTIC.			Tenacity class.	Knots per yard.	Turns per inch.			Spinning Room.			
														Counts Actual.	Strength (lbs.)	Count Strength							Counts Actual.	Work of Rupture (inch lbs.)	Count Work Product.
1020	Habib Kumbia	1030-31	10-4-31	20	10	11.0	8.2	0.0	10.0	10	100	0700	0.10	17.03	10.5	84.5	1043	10.7	117.0	2205	3	1.7	17.1	67	63
1020	Habib Kumbia	1030-31	11-4-31	24						10	180	0700	5.41	10.73	23.3	70.0	1570	21.5	100.4	2350	4	2.0	19.0	89	63
1020	Habib Kumbia	1030-31	11-4-31	30						20	161	0700	7.50	23.11	30.2	86.8	1443	29.6	52.6	2161	5	1.5	22.0	83	69
1332	Habib Kumbia	1031-32	11-5-32	20	10	14.1	8.0	0.0	21.0	55	189	0200	5.83	17.09	20.4	66.9	1503	19.0	110.0	2201	3	0.8	17.1	69	63
1332	Habib Kumbia	1031-32	12-5-32	24						36	173	0700	5.68	10.73	21.0	58.0	1311	21.2	95.6	2314	3	1.0	19.0	89	66
1332	Habib Kumbia	1031-32	12-5-32	30						40	139	0300	7.14	23.11	29.5	41.4	1221	50.1	77.2	2324	5	1.2	22.3	90	67
1742	Habib Kumbia	1032-33	22-4-37	24	10	12.3	8.7	0.0	20.5	75	172	0350	5.67	10.73	23.7	59.4	1103	23.4	93.1	2203	1	0.8	19.2	59	63
1742	Habib Kumbia	1032-33	24-4-33	30						70	133	5-50	7.34	23.11	20.1	10.0	1231	70.1	70.6	2326	5	1.5	22.2	63	63
2229	Habib Kumbia	1033-34	13-4-34	20	10	11.1	9.1	0.4	10.3	31	169	0200	5.61	17.03	20.0	55.4	1703	20.0	123.0	2172	3	1.2	17.3	67	70
2229	Habib Kumbia	1033-34	14-4-34	24						05	170	0100	5.70	10.73	21.0	01.0	1553	21.5	102.6	2403	4	1.0	19.1	67	69
2229	Habib Kumbia	1033-34	16-4-34	30						43	120	0300	7.14	23.11	20.0	43.8	1404	59.7	91.0	2495	5	1.2	22.3	67	69
2092	Habib Kumbia	1034-35	11-5-35	20	10	11.1	7.7	0.3	19.2	10	103	0300	6.10	17.04	20.1	96.0	1921	20.5	131.4	2702	5	1.2	17.3	61	63
2092	Habib Kumbia	1034-35	12-5-35	24						4	189	10250	3.52	10.73	21.1	77.1	1634	24.3	110.4	27-3	1	1.0	19.0	67	64
2092	Habib Kumbia	1034-35	12-5-35	30						7	162	10200	6.02	23.11	30.5	56.3	1717	30.0	-9.4	27-2	5	1.5	22.3	61	69
3100	Habib Kumbia	1035-36	27-4-36	20	10	0.0	7.3	0.2	10.7	10	102	0150	6.10	17.09	10.4	45.0	1625	20.0	114.4	2357	5	1.2	17.2	67	72
3100	Habib Kumbia	1035-36	28-4-36	24						14	176	0900	5.43	10.73	21.0	64.0	1630	23.0	100.2	2395	4	1.5	19.0	67	71
3100	Habib Kumbia	1035-36	28-4-36	30						17	150	0600	6.71	23.20	29.0	52.5	1517	29.4	61.4	2141	4	1.2	22.2	67	70
3572	Habib Kumbia	1036-37	10-4-37	20	10	11.0	8.2	0.1	19.4	21	202	10150	2.03	17.03	20.2	62.3	1601	20.1	121.4	2500	3	0.9	17.1	90	60
3573	Habib Kumbia	1036-37	10-4-37	24						18	190	10200	3.20	10.73	24.0	74.8	1795	21.1	105.0	2515	3	1.2	19.0	90	64
3573	Habib Kumbia	1036-37	17-4-37	30						23	160	0600	6.63	21.66	29.6	51.0	1594	29.8	69.2	2637	4	1.0	20.0	90	64
4013	Habib Kumbia	1037-38	21-4-38	20	10	12.0	7.7	0.1	19.1	21	212	10200	6.05	17.03	20.3	67.7	1790	20.4	120.8	2537	3	0.8	17.2	91	63
4013	Habib Kumbia	1037-38	22-4-38	24						18	194	10200	3.61	10.73	21.2	69.8	1699	24.2	104.0	2614	3	1.0	19.4	91	69
4013	Habib Kumbia	1037-38	22-4-38	30						23	171	10800	7.05	21.66	30.4	47.8	1411	29.4	69.4	2634	4	0.8	21.2	91	69

* Diameter of ring frame front roller— $\frac{1}{2}$: Diameter of plate— $\frac{1}{16}$.

It is to be noted that the total loss is for a small sample weighing 10 lbs. for bulk sample run under mill conditions it would be less than shown here.

17.—HUBLI UPLAND COTTON.

These samples have been tested by arrangement with the Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.	Weight (lbs.)	Sample No.	Cotton.	Season.	Weight (lbs.)
1021	Hubli Upland	1930-31	12	2230	Hubli Upland	1933-34	11
1333	"	1931-32	12	2763	"	1934-35	11
1743	"	1932-33	12	3161	"	1935-36	11

I.—SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 (inclusive) :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 and 1935-36 :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—1933-34 (inclusive) :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 and 1935-36 :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. Spinning Master's Report :—

(a) Cotton :—

	HUBLI UPLAND.					
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.
Colour	Creamy-white; slightly bright.	Creamy-white.	White to creamy-white; fairly bright.	Creamy-white.	White to creamy-white.	Creamy-white.
Cleanliness	A little leafy.	Fairly leafy.	A little leafy.	A little leafy.	A little leafy.	Leafy.
Feel	Good softish.	Softish.	Good.	Poorish soft.	Good.	Softish.
Ginning and Neppiness.	Knotted due to ginning.	A good deal knotted.	Napped and knotted.	Well-ginned.	Somewhat knotted.	Somewhat knotted in ginning.
Seeds .. .. .	..	A few undeveloped besides 0.9% partly ginned and clean seeds.	..	..	..	..
Card Sliver	Clean.	Fairly clean.	Almost clean.	Clean.	Clean.	Almost clean.
Card Web	A trifle neppy and cloudy.	Good.	A little neppy.	Cloudy.	Somewhat neppy.	Somewhat neppy.
Weight of 10 flat strips.	18.3 grams.	18.6 grams.	20.9 grams.	19.0 grams.	31.3 grams.	15.8 grams.
Remarks	Fully pressed.	..	..	..	..	..

(b) Yarn :—

	HUBLI UPLAND.					
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.
Cleanliness	Fairly clean.	Fairly clean.	Clean.	Clean.	A little leafy.	Almost clean.
Evenness	Even.	Fairly even.	Fairly even.	Fairly even.	Fairly even.	Fairly even.
Neppiness	Almost nap-free	Almost nap-free	Almost free of nep.	Almost free of nep.	Neppy.	Almost free of nep.
Shubbiness .. .. .	..	..	A trifle slubby.	..	..	..
Remarks .. .. .	..	..	..	..	..	..

3. Spinning Test Details and Results :—See Table 17 on page 133.

II.—GRADER'S REPORT* FOR HUBLI UPLAND COTTON.

		HUBLI UPLAND.					
		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.
Contract valued under	.. ..	.. Kumpta.	Breach Kumpta.	F. G. M. G. Breach.	F. G. M. G. Breach.	F. G. M. G. Breach July/Aug. delivery.	F. G. M. G. Breach.
Mass	.. ..	.. Fully good.	Better fully good.	Fine.	Fine.	Barely fine.	Fully good to fine.
Colour	.. ..	.. Slight tinge.	White.	White.	Dull white.	Pure white.	Dull white.
Staple Length	.. ..	.. 7/8".	7/8".	13/16".	3/4".	27/32" to 28/32".	Barely 3/4".
Staple Strength	.. ..	.. Fair.	Poor.	Weak.	Weak.	Fairly strong.	Weak.
Regularity	.. ..	.. Fair.	Fair.	Rather irregular.	Rather irregular.	Fairly regular.	Fairly regular.
Value above or below contract rate	.. ..	.. Rs. 10 off.	Rs. 25 on.	Rs. 7 on.	Rs. 20 on.	Rs. 00 on.	Par to Rs. 5 on.
Basis	.. ..	.. Rs. 250.	Rs. 166.	Rs. 177.	Rs. 105.	Rs. 228.	Rs. 200.
Date of Valuation	.. ..	.. 15-4-31.	16-5-32.	18-4-33.	9-4-34.	20-6-35.	20-4-36.
Remarks	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..

* Report since 1933-34 is made by the mill supplying the sample.

Table 17.—SPINNING TEST RESULTS FOR HUBLI UPLAND COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.						TEMPERATURE (°F.)	RELATIVE HUMIDITY (%)			
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.†	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per inch.	LEA.			BALISTO.			Evenness Class.			Keps per yard.	Turns per inch, Actual.	
															Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lb.)	Count-Work Product.						
1021	Hubli Upland..	1930-31	10-4-31	20	10	0.1	10.1	0.7	18.8	10	196	9700	0.67	17.98	20.0	75.2	1504	10.5	123.2	2102	3	1.2	17.0	87	64	71
1021	Hubli Upland..	1930-31	11-4-31	24		..	..	..	..	32	180	9700	5.68	19.73	23.3	91.0	1421	22.8	105.0	2394	4	2.2	18.9	89	62	70
1021	Hubli Upland..	1930-31	11-4-31	30		..	..	..	..	57	191	9700	7.30	23.11	30.2	42.8	1293	20.3	82.0	2403	5	2.7	22.1	88	90	97
1333	Hubli Upland..	1931-32	11-5-32	20	10	11.1	10.2	0.0	20.0	41	186	9200	5.65	17.68	20.2	58.8	1188	20.1	112.0	2251	4	1.5	17.4	89	67	97
1333	Hubli Upland..	1931-32	12-5-32	24		..	..	..	..	72	173	9300	5.68	19.73	23.5	48.8	1147	24.5	90.4	2215	4	1.2	19.1	89	66	97
1743	Hubli Upland..	1932-33	24-4-33	20	10	10.0	11.3	0.5	20.6	68	188	9350	5.98	17.03	19.0	98.1	1356	10.0	113.0	2249	4	1.8	17.4	86	64	60
1743	Hubli Upland..	1932-33	24-4-33	24		..	..	..	..	91	173	9400	5.98	10.73	23.8	54.4	1295	24.1	94.6	2280	5	1.2	19.0	87	62	60
2230	Hubli Upland..	1933-34	13-4-34	20	10	7.2	10.8	0.5	17.0	36	189	9200	5.83	17.98	19.7	92.8	1237	10.8	115.8	2293	4	1.5	17.3	88	67	69
2230	Hubli Upland..	1933-34	14-4-34	24		..	..	..	..	161	170	9190	5.98	10.73	24.0	44.2	1091	24.1	94.0	2265	5	1.5	18.9	87	69	68
2763	Hubli Upland..	1934-35	26-6-35	20	10	8.8	15.3	0.0	23.1	47	180	8750	5.81	17.08	10.4	94.4	1240	10.5	127.0	2488	4	3.2	17.2	88	70	78
2763	Hubli Upland..	1934-35	27-6-35	24		..	..	..	..	98	166	8900	6.22	20.74	23.7	51.7	1225	23.2	105.6	2450	5	4.0	20.2	88	72	78
3161	Hubli Upland..	1935-36	30-4-36	20	10	0.3	8.7	0.4	17.5	19	195	9550	6.07	17.98	20.1	60.9	1339	10.0	126.0	2470	4	1.0	17.2	88	68	70
3101	Hubli Upland..	1935-36	29-4-36	24		..	..	..	..	41	175	9000	5.51	19.73	23.7	51.8	1258	23.7	101.2	2398	4	1.5	18.9	87	60	71
3101	Hubli Upland..	1935-36	29-4-36	30		..	..	..	..	20	149	9550	0.80	23.20	29.8	40.9	1219	29.1	84.0	2402	5	1.2	22.2	86	67	69

* Diameter of ring frame front roller—7". Diameter of rings—14".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

18.—KAMPALA COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.
2754	Kampala (African) ..	..1934-35
3266	Kampala ( „ ) ..	..1935-36
3578	Kampala ( „ ) ..	..1936-37
4034	Kampala ( „ ) ..	..1937-38

I.—SPINNING TESTS.

1. *Treatment.*—

(a) *Blow-room*:—Hopper bale opener, Horizontal cleaner, Crighton, Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (twice). In 1934-35, the sample was not passed through Horizontal cleaner and was passed through the Scutcher three times; otherwise its treatment was the same as for the other samples.

(b) *Card-room*:—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 3.

2. *Spinning Master's Report*:—(a) *Cotton*:—

	KAMPALA.			
	1934-35.	1935-36.	1936-37.	1937-38.
Colour	Whitetocreamy-white; bright.	White to creamy-white; bright.	White to creamy-white.	White to creamy-white.
Cleanliness .. .	Very clean.	Very clean.	Clean.	Clean; a little stained.
Feel .. .	Good; silky.	Smooth and bodied.	Good; soft.	Soft; smooth.
Ginning and Neppiness ..	Well-ginned.	Somewhat knotted and strung.	Well-ginned.	..
Seeds .. .	..	..	..	..
Card sliver .. .	Clean and silky.	Clean and silky.	Clean; silky.	Clean; soft.
Card web .. .	Even and nsp-free.	Good.	Good.	Almost free of neps.
Weight of 10 flat strips ..	22.6 grams.	21.8 grams.	17.1 grams.	13.1 grams.
Remarks .. .	..	..	..	..

(b) *Yarn*:—

	KAMPALA.			
	1934-35.	1935-36.	1936-37.	1937-38.
Cleanliness .. .	Clean.	Clean.	Clean.	Clean.
Evenness .. .	Even.	Even.	Even.	Even.
Neppiness .. .	Somewhat nappy—small neps.	A little nappy.	Almost free of nep.	Free of nep.
Slubbiness .. .	..	..	..	..

3. *Spinning Test Details and Results*:—See Table 18 on page 136.

II.—GRADER'S REPORT FOR KAMPALA COTTON.

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		KAMPALA.			
		1934-35.	1935-36.	1936-37.	1937-38.
Contract valued under	Broach July/August 1935.	Broach.	Broach April/May 1937.	Broach April, May 1938.
Class .. ..	.. ..	Good.	Fine but little stainy.	Fully good to fine.	Fully good to fine.
Colour .. ..	.. ..	Creamy-white ; silky.	White.	White creamy.	Creamy-white. .
Staple Length .. ..	.. ..	1 $\frac{1}{8}$ ".	1 $\frac{1}{8}$ ".	1 $\frac{1}{8}$ ".	1 $\frac{3}{4}$ ".
Staple Strength .. ..	.. ..	Good.	Very good.	Good.	Good.
Regularity .. ..	.. ..	Regular.	Regular.	Regular.	Regular.
Value above or below contract rate .. ..	.. ..	Rs. 129 on.	Rs. 121 on.	Rs. 190 on.	Rs. 122 on.
Basis .. ..	.. ..	Broach July/August 1935,	Broach July/August 1936,	Rs. 230.	Rs. 157-2-0.
Date of Valuation .. ..	.. ..	..	Rs. 240. 15-7-36.	4-5-37.	3-5-38.
Remarks .. ..	.. ..	..	..	..	..

Table 18.—SPINNING TEST RESULTS FOR KAMPALA COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Normal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS*.						YARN TEST RESULTS.						TEMPERATURE (°F.).	RELATIVE HUMIDITY (%).				
						Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss†.	Yarn Breakages per 100 spindles per hour.	Yarn Roller Speed, R.P.M.	Spindle Speed, R.P.M.	Draft.	Turns per Inch.	L&A			BALISTIC.			Tevens class.			Keps per yard.	Turns per Inch. Actual.	Spinning Room.	Winding Room.
															Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lbs.)	Count-Work Product.							
2754	Kampala..	1934-35	27-6-35	20	10	3.1	11.7	0.2	14.0	0	166	9,700	5.81	17.93	20.4	110.8	2,200	20.4	211.6	4,317	3	3.6	17.1	85	70		
2754	Kampala..	1934-35	1-7-35	30		..	..	..	..	3	106	9,800	0.11	21.83	23.7	72.4	2,078	20.0	120.0	3,054	4	4.5	21.1	86	73
2754	Kampala..	1934-35	29-6-35	40		..	..	..	..	7	141	9,800	8.45	25.23	19.8	47.0	1,821	38.8	89.0	3,453	5	3.8	21.3	83	74
3280	Kampala..	1935-36	7-7-36	20	10	2.3	11.1	0.2	13.4	5	201	10,300	6.10	17.03	20.3	107.0	2,091	20.6	175.6	3,017	7	2.5	17.3	87	73		
3280	Kampala..	1935-36	10-7-36	30		..	..	..	..	3	163	10,500	6.54	21.86	20.5	66.2	1,653	29.4	106.0	3,134	4	2.0	21.2	87	72
3280	Kampala..	1935-36	11-7-36	40		..	..	..	..	5	140	10,400	8.80	25.23	10.3	12.4	1,709	10.9	74.0	3,027	5	3.2	21.7	88	71
3578	Kampala..	1936-37	23-4-37	20	10	4.4	10.2	0.2	14.3	6	225	10,250	6.25	16.85	20.9	102.3	2,138	20.8	159.6	3,299	2	0.8	10.2	90	68		
3578	Kampala..	1936-37	21-4-37	30		..	..	..	..	10	183	10,250	6.07	20.74	20.0	62.3	1,862	30.0	97.6	2,993	3	1.0	20.0	90.	68
3578	Kampala..	1936-37	20-4-37	40		..	..	..	..	2	147	9,500	8.83	23.79	33.7	10.0	1,519	39.7	73.6	2,922	5	1.5	23.3	89	67
4034	Kampala..	1937-38	20-4-38	20	10	3.1	7.1	0.2	10.2	0	220	10,050	0.31	16.85	20.3	106.0	2,164	20.3	180.1	3,062	3	0.5	10.2	92	60		
4034	Kampala..	1937-38	20-4-38	30		..	..	..	..	7	179	10,200	0.54	20.74	20.7	65.3	1,930	30.0	104.0	3,138	3	1.0	14.8	93	66
4034	Kampala..	1937-38	20-4-38	40		..	..	..	..	5	167	10,300	8.67	27.70	41.3	40.3	1,004	41.7	74.2	3,004	4	0.5	23.0	91	67

* Diameter of ring frame front roller—1½". Diameter of rings—1½".

† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabouts; for bulk sample spun under mill conditions it would be less than shown here.

19.—AFRICAN BUSOGA COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of the first arrivals of the new crop.

Sample No.	Cotton.	Season.
1749	African Busoga.	1932-33.
2755	African Busoga.	1934-35.
3267	African Busoga.	1935-36.
3579	African Busoga.	1936-37.
4036	African Busoga.	1937-38.

I. SPINNING TESTS.

Treatment :—

a) *Blow-room*.—1932-33 Sample :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1934-35 onwards :—Hopper bale opener, Horizontal cleaner, Crighton, Grid-ded dust trunks, Cage exhaust, Hopper feeder, Scutcher (twice). The 1934-35 sample was not passed thro' the Horizontal cleaner and was passed through the Scutcher three times ; otherwise its treatment was the same as for the other samples.

b) *Card-room*.—1932-33 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1934-35 onwards :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

Spinning Master's Report :—

a) *Cotton* :—

AFRICAN BUSOGA.					
	1932-33.	1934-35.	1935-36.	1936-37.	1937-38.
.. ..	White to creamy-white.	White to creamy-white ; bright.	White to creamy-white ; brightish.	White to creamy-white ; bright.	White to creamy-white.
.. ..	Bright ; very clean.	Clean.	Clean.	Fairly clean.	Clean.
.. ..	Soft silky.	Silky.	Soft silky.	Soft silky.	Soft.
Neppiness	Well-ginned.	Somewhat knotted.	Slightly knotted in ginning.	Well-ginned.	Well-ginned.
..
.. ..	Clean.	Clean.	Clean.	Clean soft.	Clean.
.. ..	Good.	Fairly neppy.	Somewhat cloudy and neppy.	Fairly good ; a trifle neppy.	Good ; nep-free.
Flat strips	18.2 gram ^s .	30.3 gram ^s .	24.6 gram ^s .	..	14.5 gram ^s .
.. ..	..	Card allver has a poorish soft and silky feel.	Fibres are irregular in length.	..	..

b) *Yarn* :—

AFRICAN BUSOGA.					
	1932-33.	1934-35.	1935-36.	1936-37.	1937-38.
.. ..	Clean.	Clean.	Clean.	Clean.	Clean.
.. ..	Even.	Even.	Even.	Even.	Even.
.. ..	A trifle neppy.	Neppy.	Somewhat neppy.	Free of nep.	Free of nep.
.. ..	..	..	Occasionally slubby.	..	..
..

Spinning Test Details and Results.—See Table 19 on page 139.

II.—GRADER'S REPORT FOR AFRICAN BUSOGA COTTON.

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AFRICAN BUSOGA.						
		1932-33.	1934-35.	1935-36.	1936-37.	1937-38.
Contract valued under	F.G.M.G. Broach Hedge Contract No. 2.	Broach July/August 1935.	Broach.	Broach.	Broach April/May 1938.
Class	.. ..	Fully good.	Good.	Fine but little starchy.	Fine.	Fully good to fine.
Colour	.. ..	Creamy-white.	White-creamy.	White.	White creamy.	Creamy-white.
Staple Length	.. ..	11 $\frac{1}{8}$ ".	11 $\frac{1}{8}$ ".	11 $\frac{1}{8}$ ".	11 $\frac{1}{8}$ ".	11 $\frac{1}{8}$ ".
Staple Strength	.. ..	Very good.	Good.	Very good.	Good.	Good.
Regularity	.. ..	Good.	Regular.	Very regular.	Regular.	Regular.
Value above or below contract rate	.. ..	Rs. 118 on.	Rs. 127 on.	Rs. 120 on.	Rs. 188 on.	Rs. 118 on.
Basis	.. ..	F.G.M.G. Broach Contract No. 2 April/May Rs. 182.	Broach July/August 1935.	Broach July/Aug. 1936, Rs. 240.	Broach A/May 1937, Rs. 230.	Broach Rs. 157-2-0.
Date of Valuation	.. ..	19-4-33.	.. ..	15-7-36.	4-5-37.	3-5-38.
Remarks	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..

Table 19.—SPINNING TEST RESULTS FOR AFRICAN BUSOGA COTTON.

Sample No	Cotton	Season	Date of Spinning	Counts nominal	Weight of sample (lbs)	WASTE PERCENTAGES				YARN NAME PARTICULARS *						YARN TEST RESULTS						TEMPERATURE HUMIDITY (%)					
						Blown Room Loss	Card Room Loss	Spinning Loss	Total Loss +	Yarn breakage per 100 spindles per hour.	Front Roller Speed, R P M	Spindle speed, R P M	Draft	Turns per inch	Counts Actual	Strength (lbs)	Count Strength	Counts Actual	Work of Rupture (inch lb)	Count-Work Product	Evenness Class	Knots per yard.	Turns per inch Actual	Spinning Room	Testing Room.		
1740	African Busoga	1932-33	1-5-33	40	10	4.4	9.3	0.4	13.0	27	141	9700	9.14	25.28	39.1	42.2	1050	1050	19.1	77.0	1311	5	1.8	24.0	88	04	71
1749	African Busoga	1932-33	3-5-33	40	10	4.4	9.3	0.4	13.0	22	136	10800	11.3	20.00	40.0	20.9	1508	1508	49.5	90.0	2038	5	2.5	28.8	90	07	96
2755	African Busoga	1931-33	27-6-35	20	10	3.4	14.7	0.4	18.0	16	107	9700	9.9	17.98	20.2	110.2	210	210	20	200.2	4269	3	8.5	17.1	88	73	78
2755	African Busoga	1931-35	23-6-35	30	10	3.4	14.7	0.4	18.0	7	161	9700	0.30	21.80	23.8	75.5	2171	2171	20.9	125.4	3749	1	8.0	21.3	89	71	90
2755	African Busoga	1931-33	28-6-35	40	10	3.4	14.7	0.4	18.0	12	149	9800	5.9	25.28	39.6	17.3	1873	1873	40.5	80.1	3109	5	7.5	21.5	88	72	78
3267	African Busoga	1933-36	5-7-36	20	10	5.0	14.1	0.3	10.4	21	202	10350	5.95	17.98	20.6	102.0	2111	2111	20.4	177.8	1027	1	1.8	17.2	47	73	68
3267	African Busoga	1935-36	10-7-36	30	10	5.0	14.1	0.3	10.4	17	149	10300	0.41	21.80	20.6	70.5	2047	2047	20.7	108.8	7211	4	2.2	20.0	80	72	74
3267	African Busoga	1935-36	9-7-36	40	10	5.0	14.1	0.3	10.4	0	146	10400	8.02	25.28	39.9	11.9	1407	1407	39.8	61.2	3272	5	2.8	21.2	87	74	72
3570	African Busoga	1936-37	26-1-37	20	10	5.3	10.1	0.3	15.2	0	224	10150	6.19	18.85	20.8	102.3	2128	2128	20.9	153.5	1211	2	0.9	16.4	89	60	68
3570	African Busoga	1936-37	27-1-37	30	10	5.3	10.1	0.3	15.2	13	151	10300	0.05	20.74	19.1	70.0	2107	2107	10.0	105.6	3165	3	0.8	19.4	90	68	66
3570	African Busoga	1936-37	27-1-37	40	10	5.3	10.1	0.3	15.2	0	147	0700	8.25	23.70	39.0	11.5	1758	1758	39.5	70.0	1026	4	1.0	23.1	89	60	66
4036	African Busoga	1937-38	2-5-38	20	10	4.1	8.1	0.1	11.9	0	220	10150	6.22	16.85	20.5	111.3	2232	2232	20.8	172.4	3786	2	0.5	15.0	91	08	68
4036	African Busoga	1937-38	4-5-38	30	10	4.1	8.1	0.1	11.9	0	177	10300	6.44	20.74	30.4	66.1	2049	2049	30.2	105.0	1171	3	0.5	19.3	91	08	68
4036	African Busoga	1937-38	4-5-38	40	10	4.1	8.1	0.1	11.9	0	157	10300	8.07	23.70	40.3	43.1	1715	1715	41.2	78.8	3217	4	0.8	22.7	90	09	68

* Diameter of ring frame front roller—2".

† It is to be noted that the total loss is for 1 equal sample weighing 10 lbs., for bulk sample spun under mill conditions it would be less than shown here.

20.—JINJA COTTON.

These samples have been tested by arrangement with the Bombay Millowners' Association, Bombay, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.
3268	Jinja (African).	1935-36.
3580	Jinja (African).	1936-37.
4035	Jinja (African).	1937-38.

I.—SPINNING TESTS.

1. *Treatment* :—

- (a) *Blow-room*.—Hopper bale opener, Horizontal cleaner, Crighton (once), Guided dust trunks, Cage exhaust, Hopper feeder, Scutcher (twice).
- (b) *Card-room*.—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 3.

2. *Spinning Master's Report*.(a) *Cotton* :—

	JINJA (AFRICAN).		
	1935-36.	1936-37.	1937-38.
Colour	White to creamy-white ; bright.	White to creamy-white ; bright.	White to creamy-white.
Cleanliness	Fairly clean.	Clean.	Clean.
Feel	Soft smooth.	Good soft.	Soft.
Ginning and Neppiness	A good deal knotted in ginning.	Fair.	Well ginned.
Seeds .. .. .	..	..	..
Card sliver	Clean, soft and silky.	Soft silky.	Clean ; soft.
Card web	A little neppy and cloudy.	Fairly good ; nep free.	Good ; nep free.
Weight of 10 flat strips	31.1 grams.	16.3 grams.	15.0 grams.
Remarks .. .. .	..	Good cling.	..

(b) *Yarn* :—

	JINJA (AFRICAN).		
	1935-36.	1936-37.	1937-38.
Cleanliness	Clean.	Clean.	Almost clean.
Evenness	Even.	Even.	Even.
Neppiness	Neppy.	Almost free of nep.	Free of nep.
Slubbiness	A little slubby.	..	..

3. *Spinning Test Details and Results* :—See Table 20 on page 142.

II.—GRADER'S REPORT FOR JINJA (AFRICAN) COTTON.

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JINJA (AFRICAN).				
		1935-36.	1936-37.	1937-38.
Contract valued under	Broach.	Broach.	Broach April/May 1938.
Class .. ..	.. ..	Fully good to fine.	Fully good to fine.	Fully good to fine.
Colour .. ..	.. ..	White creamy.	Creamy.	Creamy.
Staple Length .. ..	.. ..	1 1/32".	1 1/16".	1 1/16".
Staple Strength .. ..	.. ..	Good.	Good.	Good.
Regularity .. ..	.. ..	Regular.	Irregular.	Rather irregular.
Value above or below Contract rate .. ..	.. ..	Rs. 110 on.	Rs. 185 on.	Rs. 110 on.
Basis .. ..	.. ..	Broach July/August 1936, Rs. 240.	Broach April/May 1937, Rs. 230.	Broach Rs. 157.2-0.
Date of Valuation .. ..	.. ..	15-7-36.	4-5-37.	3-5-38.
Remarks .. ..	.. ..	..	..	..

Table 20.—SPINNING TEST RESULTS FOR JINJA (AFRICAN) COTTON.

Sample No.	Cotton.	Season.	Date of Spinning.	Counts Nominal.	Weight of Sample (lbs.)	WASTE PERCENTAGES.				HIG FRAME PARTICULARS *						BALISTIC.						TEMPERATURE (°C.)	RELATIVE HUMIDITY (%).			
						Blow Room Loss	Card Room Loss	Spinning Loss	Total Loss †	Yarn Breakages per 100 spindles	Front Roller Speed, R.P.M.	Spindle Speed, R.P.M.	Draft.	Turns per inch	Counts Actual	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Rupture (inches).	Count-Work Product.	Evenness Class.		Neeps per yard.	Turns per inch. Actual.		
3208	Jhola (African).	1937-38	8-7-38	20	10	6.2	17.5	0.4	22.9	21	206	10100	0.07	17.03	20.6	98.0	2007	20.7	172.0	3500	1	3.5	17.1	86	70	70
3208	Jhola (African).	1937-38	8-7-38	30		..	..	..	..	0	170	10100	0.58	21.80	20.4	00.0	2000	30.1	108.0	2251	4	4.2	20.9	87	73	74
3208	Jhola (African).	1937-38	9-7-38	40		..	..	..	..	10	147	10150	0.07	25.23	10.5	42.0	1735	40.0	70.0	2256	5	4.0	21.1	80	73	72
3680	Jhola (African).	1936-37	28-4-37	20	10	5.2	10.1	0.3	15.0	0	220	10100	3.81	16.35	20.5	113.7	2731	20.1	191.0	3092	2	1.0	16.3	90	69	67
3680	Jhola (African).	1936-37	28-4-37	30		..	..	..	..	3	182	10250	5.95	20.71	28.1	76.3	2169	23.3	118.0	3139	4	1.5	19.9	89	66	66
3680	Jhola (African).	1936-37	20-4-37	40		..	..	..	..	7	146	9500	8.39	23.79	30.0	11.0	1800	40.4	80.0	3250	5	1.0	22.0	89	69	67
4035	Jhola (African).	1937-38	2-5-38	20	10	5.4	8.5	0.2	13.6	6	218	10200	6.16	16.85	20.1	113.5	2281	20.1	195.8	3735	3	0.8	16.3	91	69	68
4035	Jhola (African).	1937-38	2-5-38	30		..	..	..	..	7	180	10200	0.13	20.74	30.3	67.0	2057	20.3	105.0	3076	4	0.8	19.7	91	69	68
4035	Jhola (African).	1937-38	2-5-38	40		..	..	..	..	6	155	10150	8.07	20.79	10.5	13.0	1700	41.1	77.1	3181	4	0.5	22.0	90	68	67

* Diameter of ring frame front roller—1". Diameter of rings—11".

† It is to be noted that the total loss is for a small sample weighing 10 lbs.; for bulk sample spun under mill conditions it would be less than shown here.

1.—JAGADIA COTTON.

These samples have been tested by arrangement with the Ahmedabad Millowners' Association, Ahmedabad, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.
1010	Jagadia	.. 1930-31
1317	Jagadia	.. 1931-32
1779	Jagadia	.. 1932-33
2375	Jagadia	.. 1933-34
3164	Jagadia	.. 1935-36
3628	Jagadia	.. 1936-37

I. SPINNING TESTS.

1. Treatment :—

(a) *Blow-room*.—Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1935-36 and 1936-37 :—Hopper bale opener, Horizontal cleaner, Crighton

TECHNOLOGICAL REPORTS

ON

COTTONS SUPPLIED BY

THE AHMEDABAD MILLOWNERS' ASSOCIATION.

The samples supplied through this Association are restricted to only three cottons, viz., Jagadia, Bawla and Kadi. They also represent early arrivals of the crop in each season. The valuation reports of these samples were also made by the Grader (Major Ellis Jones) upto 1931-32 and thereafter the mills supplying the samples were requested to send their own valuation reports.

Weight of 10 flat strips	11.2 grams	of nep. 15.2 grams	free. 17.8 grams	22.6 grams	free. 14.0 grams	poppy 11.6 grams
Remarks	Staple regular in length and of good strength.					

(b) Yarn :—

JAGADIA.							
	1930-31.	1931-32	1932-33.	1933-34.	1935-36.	1936-37.	
Cleanliness	Clean	Clean	Clean	Almost clean	Clean	Almost clean	
Evenness	Even	Fairly even	Fairly even	Even	Even	Even	
Noppiness	Practically free of nep.	Almost free of nep.	Fairly free of nep.	Almost free of nep.	Almost free of nep.	Slightly nopp	
Stubbliness							
Remarks							

3. *Spinning Test Details and Results*.—See Table 1 on page 145.

2.—BAWLA COTTON.

These samples have been tested by arrangement with the Ahmedabad Millowners' Association, Ahmedabad, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.	Sample No.	Cotton.	Season.
1011	Bawla ..	1930-31	3630	Bawla ..	1936-37.
2376	Bawla ..	1933-34			

L.—SPINNING TESTS.

1. *Treatment* :—

(a) *Blow-room*.—Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).
1936-37 :—Hopper bale opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1936-37 :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. *Spinning Master's Report* :—(a) *Cotton* :—

	BAWLA.		
	1930-31.	1933-34.	1936-37.
Colour	White; bright	White to creamy-white; bright.	White to creamy-white; bright.
Cleanliness	A trifle leafy	A little leafy with occasional stains.	A little leafy; a little stained.
Feel	Good	Good smooth	Good.
Ginning and Neppiness	Very well-ginned	Well-ginned	Well-ginned.
Seeds	12% unginned	..	..
Card sliver	Clean	Almost clean	Good; almost clean.
Card web	Very good	Full	Good; nep-free.
Weight of 10 flat strips	9.9 grams	19.2 grams	15.0 grams.
Remarks .. .. .	..	..	..

(b) *Yarn* :—

	BAWLA.		
	1930-31.	1933-34.	1936-37.
Cleanliness	Clean	A little leafy	Slightly leafy.
Evenness	Even	Even in 20s only	Even.
Neppiness	Almost free of nep.	A little neppy	Fairly free of nep.
Slubbiness .. .. .	..	..	..

3. *Spinning Test Details and Results* :—See Table 2 on page 147.

II. GRADER'S REPORT * FOR BAWLA COTTON.

BAWLA.

			1930-31.	1933-34.	1936-37.
Contract valued under	..	..	Broch.	Broch.	
Class .....	..	..	Fine.	Fine.	
Colour ..	..	..	White.	Shade dull white.	
Staple Length	..	..	One inch.	15/16 inch.	
Staple Strength	..	..	Fair.	Fair.	
Regularity ..	..	..	Fair.	Fair.	
Value above or below Contract rate	30	25-3-31	Rs. 22 on.	Rs. 10-0 off.	
Basis ..	..	..	Rs. 205.	Rs. 215.	
Date of Valuation	..	..	24-3-31.	23-3-37.	
Remarks ..	..	..	..	..

* Report since 1933-34 is made by the mill supplying the sample.

Table 2.—SPINNING TEST RESULTS FOR BAWLA COTTON.

Sample No.	Cotton.	Season.	Date of spinning.	Weight of sample (lbs.)	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*						YARN TEST RESULTS.				TEMPERATURE (°F.)	RELATIVE HUMIDITY (%)
					Blow Room Loss.	Card Room Loss.	Spinning Loss.	Total Loss.	Yarn Packages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per Inch.	Counts Actual.	Counts Strength (lbs.)	Count Strength (Count-Product).	Work of Machine (Each lb.)	Count-Work Product.	Knots per ynd.	Turns per Inch. Actual.
					Counting Machine.	Counting Machine.	Counting Machine.	Counting Machine.	Counting Machine.	Counting Machine.	Counting Machine.	Counting Machine.	Counting Machine.	Counting Machine.	Counting Machine.	Counting Machine.	Counting Machine.	Counting Machine.	Counting Machine.	Counting Machine.
1011	Bawla	1930-31	29-3-31	20	8	7.6	6.0	15.7	23	182	9300	0.41	17.98	29.1	51.8	1101	103.8	2055	1	16.0
1011	Bawla	1930-31	27-3-31	24	..	..	..	..	52	162	9300	0.38	20.71	21.7	42.3	1015	85.0	2108	1	20.1
2376	Bawla	1933-34	11-7-31	20	10	9.7	9.0	18.8	10	104	9700	0.09	17.99	20.3	57.3	1091	136.1	2701	3	17.4
2376	Bawla	1933-34	12-7-34	20	..	..	..	..	7	100	9300	0.28	21.86	20.4	50.5	1183	80.0	2390	5	21.1
2370	Bawla	1933-34	12-7-34	34	..	..	..	..	24	151	9300	7.21	23.20	33.5	30.2	1313	70.9	2512	0	22.3
3030	Bawla	1936-37	28-5-37	14	10	10.6	8.9	18.0	7	207	8500	4.17	14.98	14.1	90.8	1280	208.2	2973	2	14.1
3630	Bawla	1936-37	25-5-37	10	..	..	..	..	0	107	8300	5.01	13.07	10.3	71.1	1159	165.0	2520	3	15.2
3630	Bawla	1936-37	25-5-37	20	..	..	..	..	31	170	8600	5.05	17.98	20.2	51.0	1018	112.0	2202	4	17.5
3630	Bawla	1936-37	25-5-37	20	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

* Diameter of ring frame front roller—1½". Diameter of rings—1½".
† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

3.—KADI COTTON.

These samples have been tested by arrangement with the Ahmedabad Millowners' Association, Ahmedabad, who have very kindly agreed to arrange for the supply each season of samples of the first arrivals of the new crop.

Sample No.	Cotton.	Season.
1012	Kadi	1930-31
1318	Kadi	1931-32
2377	Kadi	1933-34
3165	Kadi	1935-36
3629	Kadi	1936-37

I.—SPINNING TESTS.

1. *Treatment* :—

(a) *Blow-room*.—Upto 1933-34 :—Porcupine, Crighton (twice), Hopper, Scutcher (3 times).

1935-36 and 1936-37 :—Hopper bale Opener, Horizontal cleaner, Crighton (once), Gridded dust trunks, Cage exhaust, Hopper feeder, Scutcher (3 times).

(b) *Card-room*.—Upto 1933-34 :—Card, Drawing (2 heads), Slubber, Inter, Rover and spun from single hank roving on Ring Frame No. 1.

1935-36 and 1936-37 :—As above but spun from single hank roving on Ring Frame No. 3 which is fitted with tape drive arrangement for spindles, while Ring Frame No. 1 possesses a band drive arrangement.

2. *Spinning Master's Report* :—(a) *Cotton* :—

KADI.					
	1930-31.	1931-32.	1933-34.	1935-36.	1936-37.
Colour	White; bright.	White; bright	Creamy-white..	White to creamy-white; brightish.	White to creamy-white.
Cleanliness .. .	Leafy .. .	A trifle stained; fairly leafy.	Very leafy with occasional stains.	Leafy .. .	A little leafy; a trifle stained.
Feel .. .	Good .. .	Good soft ..	Good .. .	Good .. .	Good.
Ginning and Neppiness ..	Very well-ginned.	Well-ginned ..	Well-ginned ..	Well-ginned ..	Fairly well-ginned.
Seeds .. .	1% unginned ..	..	..	..	..
Card Sliver .. .	Clean .. .	Almost clean ..	Almost clean ..	Almost clean ..	Good ; almost clean.
Card Web .. .	Very good ..	Even and nep-free.	Full .. .	Even and nep-free.	Good.
Weight of 10 flat strips ..	..	13.0 grams ..	20.7 grams ..	16.3 grams ..	14.7 grams.
Remarks .. .	..	..	..	..	Wasty in Blow-room and card.

(b) *Yarn* :—

KADI.					
	1930-31	1931-32.	1933-34.	1935-36.	1936-37.
Cleanliness .. .	Clean .. .	Clean .. .	Almost clean ..	Almost clean ..	Almost clean.
Evenness .. .	Even .. .	Fairly even ..	Even in the two lower counts.	Even .. .	Fairly even.
Neppiness .. .	Almost free of nep.	Practically free of nep.	Almost free of nep.	Nep-free ..	Fairly free of nep.
Slubbiness .. .	..	..	A trifle slubby.	..	..

3l. *Spinning Test Details and Results* :—See Table 3 on page 150.

I.—GRADER'S REPORT* FOR KADI COTTON.

KADI.

	1930-31.	1931-32.	1933-34.	1935-36.	1936-37.
Contract valued under	.. ..	.. ..	.. ..	.. ..	.. ..
Class	Broach	Broach Dhollera	Broach	Broach	Broach.
Colour	Fine	Fine	Fine	Fine	Fine.
Staple Length	White	White	White	White	Dull white.
Staple Strength	11/16 inch	15/16 inch	15/16 inch	15/16 inch	15/16 inch.
Regularity	Fair	Fair	Fair	Fair	Fair.
Value above or below contract rate	Rs. 65.70 on	Rs. 15 on	Rs. 32-12 on	Rs. 7-8 on	Rs. 6-4-0 off.
Basis	Rs. 205	Rs. 170	Rs. 196	Rs. 200	Rs. 249-4-0.
Date of Valuation	26-3-31	5-5-32	23-4-34	1-4-36	2-4-37.
Remarks	.. ..	.. ..	.. ..	.. ..	.. ..

* Reports since 1933-34 are made by the mill supplying the sample.

Table 3.—SPINNING TEST RESULTS FOR KADI COTTON.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Sample No.	Cotton.	Season.	Date of Spinning.	WASTE PERCENTAGES.				RING FRAME PARTICULARS.*				YARN TEST RESULTS.										EMPER- ATURE (°F.).	RELATIVE HUMIDITY (%).			
				Blow Room Loss	Card Room Loss.	Spinning Loss.	Total Loss.	Yarn Breakages per 100 spindles per hour.	Front Roller Speed, R. P. M.	Spindle Speed, R. P. M.	Draft.	Turns per inch.	LEA.			BUILDING.			Twines Class.	Keps per yard.	Turns per inch, Actual.					
													Counts Actual.	Strength (lbs.)	Count-Strength Product.	Counts Actual.	Work of Rupture (inch-lb.)	Count-Work Product.								
1012 Kadi	..	1930-31	26-5-31	10.2	7.0	0.8	18.1	57	182	8950	6.41	17.08	10.8	58.8	1164	19.8	105.8	2095	3	1.0	17.0	85	85	85	85	85
1012 Kadi	..	1930-31	27-8-31	..	..	..	..	50	162	9700	6.54	20.74	24.3	42.0	1035	24.1	85.1	2038	4	1.5	19.8	85	85	85	85	85
1318 Kadi	..	1931-32	4-5-32	10.5	7.0	0.7	18.1	105	194	9600	5.60	17.08	10.9	59.0	1180	20.3	103.1	2110	4	1.0	17.5	90	90	90	90	90
1318 Kadi	..	1931-32	3-5-32	..	..	..	..	21	168	9650	6.51	20.74	23.2	50.8	1170	23.4	93.0	2170	5	1.5	20.3	90	90	90	90	90
2377 Kadi	..	1933-34	11-7-34	14.2	10.8	0.7	24.0	20	105	9500	6.10	17.08	10.7	68.3	1316	19.9	118.0	2300	3	1.2	17.2	86	86	86	86	86
2377 Kadi	..	1933-34	12-7-34	..	..	..	..	41	178	9650	5.43	10.73	23.7	55.5	1315	24.1	95.0	2200	4	1.5	18.9	86	86	86	86	86
2377 Kadi	..	1933-34	12-7-34	..	..	..	..	50	151	9500	6.87	23.11	20.6	38.5	1140	20.6	75.4	2232	5	2.0	21.0	86	86	86	86	86
3165 Kadi	..	1935-36	5-5-36	12.5	8.2	0.5	20.1	20	101	9700	6.83	17.08	10.9	68.5	1343	19.8	116.8	2713	3	0.5	17.5	87	87	87	87	87
3165 Kadi	..	1935-36	5-5-36	..	..	..	..	41	174	9700	6.07	19.73	21.1	48.2	1162	23.2	97.1	2280	4	0.8	18.7	88	88	88	88	88
3229 Kadi	..	1936-37	29-5-37	12.2	8.0	0.5	20.5	30	168	8700	4.14	15.97	10.5	60.1	1102	16.3	130.8	2270	3	1.8	15.2	80	80	80	80	80
3229 Kadi	..	1936-37	24-5-37	..	..	..	..	42	103	9500	6.07	17.08	20.3	10.3	940	20.1	102.0	2050	4	1.8	17.0	80	80	80	80	80

* Diameter of ring frame front roller—17". Diameter of rings—11".

† It is to be noted that the total loss is for a small sample weighing 10 lbs. or thereabout; for bulk sample spun under mill conditions it would be less than shown here.

